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NATIONAL INCOME: THE NEXT STEP IN INDIA

BY

D. G. KARVE,

Satara.

Importance of National Income.

The estimation of the size and movements of national income has always occupied an important place in economic literature. As an index of the healthy and progressive working of individual and collective endeavours aimed at promoting material welfare the figure of national income has particular significance. Its influence on the national income is often adduced as a justification not only for the economic, but also for many administrative and hygienic reforms. Since the advent of the era of avowed interventionism and planning the periodic estimation of national income has assumed or twofold significance. Several of the economic, political and fiscal measures of a state depend upon the capacity of a community to bear their immediate and ultimate costs. The figure for national income gives a rough idea as to how far the resources of a state might be strained. Equally well the success[1] or failure of individual items of economic policy is most usually measured with reference to their influence on national income. As the augmentation of the community's

1 *The Economist*, April 10, 1937. National Income British and American. "It (National Income) is not merely the starting point of economic policy, but also the criterion of the policy's success or failure, for the aim of all economic management should be to increase the aggregate incomes of the community's members."

possession of the means of material well-being is the principal object of national economic policy, the estimation of the size and variation of the figure for national income might then justly be called a crucial study.

India's National Income.

The poverty of India at the present day is at least as proverbial as its alleged prosperity in the hoary past. That a desire to give the measure of this poverty in quantitative terms should have possessed the minds of many inquirers was only natural. The desire was further fanned by political and administrative claims and counter-claims. The influence of British rule on India's 'wealth' has always been a hotly debated issue, and many of the efforts, official as well as non-official, at estimating Indian national income, have not escaped the effects of this controversy. More narrowly, the efficacy of such state policies as the land revenue and tariff systems in promoting the welfare of the people could hardly be judged except with reference to the measure of national income. The need that has recently arisen to expand the basis and to enhance the yield of Indian taxes has also brought to the forefront the question of assessing the country's total wealth and annual income, on which the taxable capacity of the people must ultimately depend.

Attempts at its measurement.

The interest aroused by attempts at measuring national income in India is thus essentially of the same kind as that observed in other countries. To assess the efficacy of existing social and economic policy, and to supply material for future modifications in these respects, have been the principal motives of these attempts in India, as everywhere else. It is nearly sixty years since the first attempt of this kind was made by the late Mr. Dadabhai Naoroji, since whose days at least a dozen prominent authors have set their hands to estimating India's national income. In view of this it is at first sight surprising that as late as the last session of the Indian Economic Conference, all the attempts hitherto made to compute India's national income were described, by a competent and sympathetic Indian critic,[2] as suffering from grave defects of material and method. It is

2 B. N. Kaul's paper on 'Estimation of the National Income of India,' read and discussed at the 20th (Agra) session of the Indian Economic Conference. —*Indian Journal of Economics* (*I. J. E.*), April 1937, p. 529 et. seq.

easier to acquiesce in the former part of this judgement than in the latter. Almost to a man, all Indian economists who have put their hands to an estimation of India's national income have done so by what has been authoritatively described as the more fundamental[3] method of assessing the produced, rather than the the consumed income. It is indeed possible to cavil at the freedom of imagination with which such vital items as the ratio of non-agricultural to agricultural incomes, and of agricultural costs to production were sometimes estimated. It is also true that on such controversial questions as the inclusion of services, taxes and capital movements the practice in India has not in all cases been in conformity with the prevailing school of thought[4] on the subject elsewhere. But as will be clear in the sequel these are comparatively unimportant blemishes in a work that otherwise has been characterised by great industry and insight.

Unsatisfactory Data.

The more far-reaching of the defects of the Indian attempts at estimating national income arise out of the unsatisfactory character of the data used. For these shortcomings the public authorities in India must be held to be mainly responsible. The primary data[5] used by almost all authors mainly consists of the published statistics of cropped area and estimated yield of the several crops. Whatever defects these two items suffer from are not certainly of the making of Indian economists, who have always urged a radical reform in the method of their collection. The almost complete lack of representative figures for agricultural costs, rural and urban wages, the produce of small-scale industries and the detailed distribution of population by occupational status—all these are obstacles in the way of any accurate measuring either of the wealth or of the income of the people. Only the state can bring into being the legislative and administrative equipment necessary to gather and coordinate these vital aids to the process of estimating India's national income.

3 A scheme for an economic census of India by Dr. A. L. Bowley and Mr. D. H. Robertson, *B. R. R.*, P. II.

4 Sir Josiah Stamp's paper on 'Methods used in different countries for estimating National Income,' read and discussed at the centenary meeting of the Royal Statistical Society, published in the *Journal of the Royal Statistical Society* (*J. R. S. S.*), Part III, 1934, p. 426. "The balance of argument to me is overwhelmingly in favour of a conception of national income which puts full exchange value upon services rendered, however immaterial."

5 Dr. Kaul's paper referred to *I. J. E.*, April 1937.

New outlook.

The fact is that the importance of maintaining an extensive and reliable system of collecting statistical information bearing on all aspects of public policy has been only lately, and even now, incompletely realised by the government in India. It must also be added that the scientific thought[6] on the subject of estimating national income has only recently reached an advanced stage though it is by no means unanimous even now. In 1931, for the first time the Government of India invited Sir Arthur Salter, the then Director of the economic and financial section of the secretariat of the League of Nations, to advise them in setting up an economic advisory organisation in India. Sir Arthur Salter reviewed the organisation and working of economic advisory bodies in other countries, and in the light of special features of India made his own recommendations.[7] This report remained unattended to by government. The appointment in January 1934 of an expert committee consisting of Dr. Bowley and Mr. Robertson to advise the Government of India regarding the merits of their statistical organisation and equipment may be taken to mark at least the faint beginning of a revived interest on the part of government. At any rate the great enthusiasm with which new popular ministries are expected to take measures of public reform will ill serve the ends in view unless the process of modernising the statistical services is considerably pushed forward without any further delay. The present time appears to be opportune to take stock of the theoretical and practical aspects of this initial problem of devising a technique and gathering material for the purpose of assessing the national income of India.

National Wealth.

It has been said sometimes that it is more important to assess the total national wealth[8] of a community than the aggregate of its annual income. It must be admitted that for deciding several important questions of long-range economic

6 A very good summary of the development of thought on this subject can be gathered from Sir Josiah Stamp's paper and the discussion on the same, referred to above (*J. R. S. S.*), 1934, and from the article on National Income in the *Encyclopædia of Social Sciences* (*E. S. S.*), Vol. XI, pp. 205—224.

7 A scheme for an Economic Advisory Organisation in India. Report by Sir Arthur Salter, 1931.

8 Prof. Francois Simiand, *J. R. S. S.*, 1934, pp. 457-8.

policies an assessment of the wealth of a community has great value. But the annual flow of income is practically far more significant for the nation as for the individual. Moreover, the process of capitalisation by which the national wealth will have to be mainly arrived at will essentially be based on an estimate of income. More fundamental theoretically and more significant practically than national wealth is, therefore, the concept of national income. From the latter the former can be easily inferred. The former leaves us in doubt as to the exact measure of the latter.

Defining a nation.

In defining the term 'national income' there are many theoretical difficulties.[9] As for the concept of the nation the territorial limits of nationality have to be modified in respect of nationals' income earnt abroad, and foreigners' income earnt in a given country. Thus at bottom it is the ownership or proprietorship of the income that is of more importance than the place of earning. In a country like India where foreign capital and enterprise are employed on a considerable scale, their earnings will constitute an important deduction from national income. On the other hand, for England, the earnings of English nationals in all parts of the overseas world must be counted into the national income. Theoretically, the demographic conception of a nation is more accurate for purposes of estimating national income than the geographic one. But the extent to which the one or the other conception would dominate the problem of assessment will depend on the nature of the economy concerned. For a nation having large foreign relations in respect of capital and enterprise the demographic concept is more relevant. For a relatively self-contained economy the geographical concept may be sufficiently adequate.

Income and Services.

Definition of income is theoretically an easy affair. The net production of goods and services during any given period is the meaning most generally attached to income. Thus from gross production of industry, costs incurred by way of replacement, have to be deducted before the figure for income is arrived at. In the term 'production of economic goods' services[10] are

9 Refer to the article on National Income in the *Encyclopædia of Social Sciences* for all aspects of definition of National Income.

10 Refer to Stamp's paper and discussion thereon (*J. R. S. S.*, 1934).

necessarily included. There are no grounds of theoretical importance adduced in support of the proposal to exclude services from national income. There may be practical difficulties in estimating the exact nature and value of services. In particular in an economy of customary services, sometimes unpaid and often paid for in kind, and at customary rates, the difficulties of calculation may prove very great. So long as the stage of economic evolution has not gone beyond the satisfaction of primary wants by traditional methods the theoretically sound course of calculating productive services has very little practical significance. In an economy of want[11] as contrasted against an economy of surplus, services have a relatively less significant part to play. In India there are sufficient grounds to believe that an attempt to estimate even the exchanged and exchangeable services of the people will prove more pedantic than useful.

Produced income.

For all practically useful purposes an estimate of the material income of the people is sufficiently significant. Even in respect of material income, however, the estimate might refer to income produced,[12] income earnt or income consumed. If the objective is to define the extent of the command that individuals actually have on the means of their livelihood, the notions of earnt and consumed income have a distinct advantage over the notion of produced income. The difficulties of measuring businessmen's and private individuals' savings are, however, so great that the estimate of earnt and consumed incomes will always tend to suffer from a much greater element of uncertainty than produced income. If, moreover, the purpose for which national income is being studied is that of measuring the annual return to the community's economic endeavour the notion of

11 W. C. Mitchell and S. Kuznets mentioned in Sir Josiah Stamp's article already referred to (*J. R. S. S.*, 1934, p. 425), and the following extract from the article on National Income (*E. S. S.*, p. 210), "Since wealth was originally conceived in material terms, only that labour was considered "productive" which resulted in material goods. This definition excluded from productive activity all services and considered incomes from services not as primary but as derived shares. While this point of view has proved inadequate, the distinction persists as background to much current thought and retains its significance as a contrast which would be valid were our economic system to become again an economy of want rather than one of surplus. In such eventuality commodities as whole, in so far as they form directly the support of life, would be more important than most services."

12 Article on National Income in *E. S. S.*, referred to.

produced income has, even theoretically, greater significance than earnt or consumed income.

Methods.

Given produced income as our objective the choice of method by which the same can be measured, or at any rate estimated becomes important. Two methods[13] are well known. One is called the census or the individual income method. The earnings of individuals are carefully recorded either by a comprehensive census or by a sample occupational inquiry. The total thus gathered is said to represent total national income. The other is the inventory or national production method. All the branches of national production are surveyed with a view to find out their net annual output. The latter is said to be the equivalent of national income for the year. In the former method the need for calculating costs of production and earnings of services is for the most part eliminated. But the lack of adequate and reliable data for the income of all classes and groups of people is a very serious handicap in the path of enumerating individual incomes, except in the most advanced countries such as those of England and U.S.A. An extensive and elaborate system of direct taxation based on income notions, an intensive occupational survey, a knowledge of representative family budgets, these are very essential for aiding the process of deriving national income from the sum total of individual incomes. This method, however, entails not only excessive expenditure, but the ever present danger that an undefined part of national income, individual and collective, will be left out of account, without any indication as to the proportion that it may bear to the collected statistics.

Inventory Method.

The inventory or national income method is not immune from practical difficulties. In the first place if it is decided to include services in the income produced, their estimation and variation are bound to be a very difficult and uncertain affair. Secondly the entire field of production is hardly ever available for being recorded, and even if it is, the difficulties of calculating the costs, which must be deducted to arrive at the income figure, are as great as ever. If then the inventory method is preferred by a large group of writers[14] it is not because they are oblivious

13 Refer to Stamp's paper and discussion thereon (*J. R. S. S.*, 1934).
14 A. W. Flux, *J. R. S. S.*, pp. 461—63.

of its theoretical and practical drawbacks. They feel, however, that in a sphere, where estimation and computation of incomplete and vague data are inevitable, this method gives at least a nucleus of basic facts which might help to reduce the unavoidable errors.

Choice of Method.

The conflict of methods in the measurement of national income has been aptly likened to a similar conflict with reference to the appropriateness of cost and utility as determining influence on value. Marshall's[15] analogy of a pair of scissors would appear to indicate the need for toleration and compromise in this field. We must confess to an inability to measure accurately the national income of any people. Even in a communistic country, as in Russia, the apparent accuracy and completeness of production data is vitiated by the vagueness of cost calculations. To get as reliable an estimate of national income as possible is the only objective towards which our studies may tend. The greater the field over which accurate measurement is possible the less are the chances of an erroneous estimate, thanks to the developing resources of the statistical science. The stage of industrial evolution in a country, the peculiarities of its taxation and distributional systems, the nature of statistical and human material available,—these must decide the choice of method suitable for each country. In a relatively backward and stationary economy an estimate of production is liable to err less than an estimate of total individual incomes.

Comparative Significance of Figures.

It is, however, clear that as far as possible both the methods should serve as a check on one another. Above all, intensive studies of family budgets representing the several income groups must be utilised as corrective to our notions. The difficulties and uncertainties that are inseparable from any method of measuring national income suggest another caution. The quanti-

15 Stamp's reply to discussion on his paper (*J. R. S. S.*, 1934, p. 555), "Mr. Flux set forth a gallant claim that the census of production was really the fundamental method of measuring the national income, so that all other methods may be "also rans." I do not want to embark on that particular discussion, but, using Marshall's analogy for value they may be called the two blades of a pair of scissors, and we should not be able to cut deeply into the subject without them both."

16 Prof. Francois Simiand in the course of discussion on Stamp's paper, *J. R. S. S.*, pp. 459—59.

tative results obtained by following either method are best treated as terms in a comparative series, rather than as accurate measurements. For different periods in one and the same country the quantitative results obtained by following any single method may more unmistakably show the direction and extent of variation rather than the actual position. A greater emphasis on the comparative, rather than absolute, significance of figures of national income is indicated.

Bowley-Robertson.

An authoritative and systematic measurement of national income in India is yet to come. The official and unofficial attempts made hitherto to estimate *per capita* income of Indians have been no better than "bold guesses." The problems involved in providing and selecting the statistical material on which any elaborate and reliable calculations can be based needed an authoritative and competent handling. In view of the methodological controversies above referred to, the choice of a suitable method in India is also a matter for preliminary discussion if resources are not to be frittered away. The invitation sent out by the Government of India to two British experts, one of whom is a well-known authority on the subject of statistics, to survey the existing position with reference to available statistical material was a good beginning. Among the terms[17] of inquiry that were specifically referred to Dr. Bowley and Mr. Robertson were included the following: (ii) 'to consider the practicability and scope of a census of production;' (iii) 'to consider the materials obtainable for measurement of national income and national wealth.'

Wealth and Production in India.

The eminent British advisers examined all the available sources of information and resources of organisation in India and they have come to very clear conclusions. They do not consider that any useful purpose will be served by trying to work out any figure for the national wealth of India.[18] In view of the scantiness of the material contrasting with the immensity of the problem, no other conclusion was possible. With respect to a general index of production the decision of the experts is

17 *B. R. R.*, p. III.

18 *B. R. R.*, p. 12.

equally emphatic and unfavourable.[19] The character and extent of primary sources on which such an index has to be based are so very unsatisfactory that a general index of production cannot at this stage be undertaken in India. For the smaller industries there is absolutely no authoritative information. For bigger industries the information for wages is lacking. As for agriculture, there is a plethora of pseudo-systematic statistics. But the sources of agricultural statistics are tainted by ignorance and inefficiency. Even here our knowledge about costs of production is at its very early stages of development. Any attempt at preparing an index of production in India must, therefore, concentrate on improving the extent and reliability of primary statistics.

National Income.

These considerations are equally valid in the field of assessing India's national income. If we were asked to prepare an estimate of India's national income out of the sources of information at present available the results cannot be very different from those already published by such writers as Profs. Findlay Shirras[20] and K. T. Shah.[21] By suggesting that a *de novo* inquiry into agricultural and industrial production must be undertaken before an attempt is made to assess India's national income, Profs. Bowley and Robertson are in effect proving the thesis[22] that with the available material no better results than those produced by Indian scholars were possible.

Surveys.

The prevalence of owner-consumption and of customary services paid in kind create special problems of computation in India. No generalised conclusions based on the usual statistical information gathered primarily for administrative purposes is justifiable in this field. The experts, therefore, suggested an intensive inquiry into the whole economic life of selected villages,[23] which were to be chosen by the process of random

19 *B. R. R.*, p. 43.

20 Findlay Shirras, *The Science of Public Finance*, pp. 138-139; *Poverty and Kindred Problems*, p. 42.

21 K. T. Shah and K. J. Khambatta, *Wealth and Taxable Capacity of India*, pp. 199-200.

22 *B. R. R.*, p. 9.

23 *B. R. R.*, pp. 17—23, 70—77.

sampling. Though some statistical experts might be tempted to push forward the claims of representative or stratified sampling,[24] the method proposed by the British experts appears to be as good as any other, besides being a simple one. With a view to assess the relative importance of urban occupations in India's national economy the experts have also suggested a sample inquiry into the earnings of urban[25] population, of small and big towns. The cooperation of teachers and students of economics is more specifically asked for in this field. It is expected that the results of these rural and urban inquiries combined with the statistics of large-scale industries and trade already available[26] will go a long way in making the task of estimating India's national income much more realistic and hopeful than it now is.

Report shelved.

The particulars of both these surveys, rural and urban, suggested by Dr. Bowley and Mr. Robertson are well-known. It is always easy in such detailed schemes to pick holes, and many details[27] can get adjusted only in the process of being practically worked. But the conclusion that the suggested schemes of the experts represent a very acceptable first step which the responsible authorities should take in the very important task of estimating the net return to the productive endeavours of the Indian people is unchallenged. The experts, presuming that their employers the Government of India were serious in their desire to improve the machinery of information and to know for a fact what the economic strength of the nation actually was, had planned a time-table[28] for their recommendations being put into effect. Their recommendations were reported to the Government of India in 1934. They expected that the administrative organisation would be set up in 1935, that the rural survey would be finished in 1936 and that the year 1937 should not close without the urban surveys

24 K. B. Madhav and B. N. Kaul, *I. J. E.*, pp. 640—643.

25 *B. R. R.*, pp. 24—29.

26 Ref. especially to Monthly Surveys of Business Conditions in India, published by Government.

27 Thus the use of figures of total grain production in villages as estimated from information gathered on threshing floors, for purposes of checking figures otherwise arrived at is a detail that might be adjusted in due course. But the replacement of the detailed survey itself by the method of computation at the threshing floor, as is suggested by Dr. P. J. Thomas in his paper read before the Indian Economic Conference (*I. J. E.*, April, 1937, pp. 541—551), is to be deprecated as it would put a very rough tool in place of a serviceable one.

28 *B. R. R.*, p. 14.

and the reporting on the results of both being achieved. The year 1937 is over and yet not even the beginnings of a real attempt to appoint and train the administrative services is visible. In fact there is little reason to doubt that the report of the British experts is by now concealed under the dust that gathers in the unfrequented dovecots of the central secretariat.

Unofficial Attempts.

While the apathy and indifference of the government are as obvious as ever the need for improving the sources of our economic intelligence grows apace. The awakened social and national consciousness of the Indian people is struggling to express itself in acts of positive economic betterment. Policies cannot be wisely devised and efficiently executed unless the extent and accuracy of our economic information improve. Nor is it possible at this stage to assess the actual results of such policies as are or as will be operative. It is, therefore, of the utmost importance that all concerned should move in the direction of implementing the recommendations of the British experts. The university departments and other research institutions are already doing their level best to improve their own knowledge and the efficacy of their services. The large number of surveys and inquiries into the social and economic conditions of the people which form the substance of the ever-increasing number of published and unpublished theses of Indian scholars[30] bear full testimony to their ardent desire to help forward the cause of discovering economic truth and publishing it for the information of those on whom lies the responsibility of shaping national economic policy.

Legislative Sanction.

The organisation, improvement and coordination of statistical information is, however, a field in which private efforts are of very limited usefulness, unless powerfully aided by the state. Much of official activity needed in this respect must necessarily come from the national government. Even if for reasons best

[29] The economic survey of Poona at present being conducted by the Gokhale Institute of Politics and Economics represents a very significant move in this field, which may in due course serve as a model for several other cities.

[30] The commendable attempt of Dr. V. K. R. V. Rao to assess industrial wages in India has been outlined in the March issue of the *Economic Journal* (1937) and indicates the anxiety of Indian scholars to undertake intensive research in this field.

known to themselves the Government of India are not for the present prepared to undertake comprehensive surveys along lines recommended by the experts of their own choice they can at any rate take steps to increase the utility of their existing machinery. Wherever large-scale industries and organised economic life have come into existence, the passing of legislation enforcing the supply of useful yet non-confidential information about business conditions has been held to be necessary. Such legislation was recommended for India by the experts,[31] who thought that the business community in India is not opposed to the principle of such legislation. Models for this type of legislation can be easily procured and the Government of India will be consulting the convenience of their own departments and of Indian scholars if they were to initiate without further delay suitable legislation on this subject. Central legislation in this sphere will have, of course, to be supplemented by provincial acts.

Census Organisation.

The All-India census comes once in ten years and its record is a very important plank in the structure of several official and non-official statements. The experience of past censuses in this and other countries has suggested improvements in the form of the decennial censuses which must find their way in the next Indian census, of 1941. Unless timely attempts are made to define and enumerate the needed reforms the next census is from a student's stand-point likely to be as disappointing as its predecessors. The desirability of setting up a permanent census office[32] has been often pressed on the Government, who might with great advantage appoint the necessary staff for the next census at least one year earlier than usual. It is very desirable that a small informal committee on which administrative, academic and industrial talent is represented should be set up so as to decide the form that the next census is to take. The work of the central committee may be supplemented by provincial bodies organised on the same principle. These committees should be kept in being, if necessary, to aid and advise the census staff during the course of the latter's work of collection, collation and editing. The responsibility and control will, of course, vest in the authorities concerned. The advisory bodies are intended only to give timely indications as to the ways in which the results of the census will

[31] *B. R. R.*, p. 15.
[32] *B. R. R.*, p. 4.

prove more serviceable to those officials and non-officials who have most often to use them.

Occupational Statistics.

The direct inquiry into the incomes of people that was undertaken in New Zealand[33] is hardly to be recommended here. The inquiry will elicit some figure, which no doubt will appear to have some plausibility. But the undeveloped and undifferentiated nature of Indian Economy, as also the ignorance and prejudice of most Indians with regard to the ends of official information agencies, makes the adoption of this course unthinkable. The census authorities might, however, elaborate the occupational[34] tables, especially for all urban areas. The status in industrial employment,—employer, employed or master-worker,—ought to be clearly defined. When the occupational statistics are published then classification by urban and rural areas must be given. With this information to guide them students working on sample surveys can hope to put the results of their work to some generalised use.

Prices, Wages and Incomes.

The price statistics at present published from Bombay and Calcutta have been recognised to be most misleading. Their replacement by a better classified and more wide-spread record of price conditions is an urgent reform which must be adopted irrespective of other pressing demands. Price statistics ought also to be accompanied by wage[35] statistics of an occupationally classified nature. The use of one and the same machinery for the collection of both these statistics will result in economy as well as efficiency. The choice of a year in the seventies of the last century as a base is no longer relevant or significant and the substitution of a more suitable basic year is badly called for. The publication in a handy form of the details of income-tax administration is likely to help the economic inquirer. All these reforms fall within the sphere of legislative and administrative action of the central government, and their execution at an early date will undoubtedly help the progress both of government departments and of national economy.

33 Stamp, *J. R. S. S.*, 1934, p. 428.

34 *B. R. R.*, pp. 4-5.

35 *B. R. R.*, pp. 43—51.

New Provincial Governments.

Much of the basic work can, however, be done without any further delay in the provinces, where the entire state organisation is now under popular control. The leaders of parties will have to go without informed advice on objects of public policy if they miss their opportunity to supply accurate and complete factual information to interested and competent students. In a democracy nothing is more vital to the political education of the electorate than the wide-spread diffusion of accurate and complete information. The old attitude of official reserve and secretiveness regarding the supply of important information must now be abandoned. Give the people facts, all facts and nothing but facts, and leave them to frame their own conclusions: this should be the attitude of the government under the new regime.

Boards of Economic Inquiry.

It is possible for at least some of the provincial governments to initiate inquiries on the lines suggested in the report of Dr. Bowley and Mr. Robertson. A co-ordinated inquiry in this field would of course have been valuable. But if the central government does not move the provincial governments need not remain in discontented inactivity. They can count upon the co-operation of the public as well as of the academic workers in this common task. In provinces like Punjab and Madras where Boards of Economic Inquiry are already in existence further progress ought not to be very difficult. Other provinces may well emulate the example of these provinces and set up Provincial Boards of Economic Inquiry. Under the new constitution it is going to be even more difficult to move the Central Government than in the past. But if provincial governments and educational institutions like the Universities and Colleges co-operate, there is no reason why the utter lack of adequate and reliable primary data for the assessment of India's national income, national wealth and national production should continue much longer.

Primary Statistics Vital returns.

It is in the sphere of improving the primary sources of statistical information that immediate steps must be taken by the provincial governments. Vital statistics about births and deaths, and crop and yield estimates have been the villains of the peace till now. By inculcating a new consciousness of the importance of accurate enumeration among all ranks of the official organisation and by improving the machinery of checks, both these

important departments of statistical information ought to be improved. An attempt must be made to get more details about the age of parents at the birth of a child and the evil of non-registration must be put down by stringent measures, if it does not yield to propaganda.

Agricultural Statistics.

Of all the production and income statistics of India the most important are those relating to the cultivation and yield of land. No amount of money and effort spent on the task of ascertaining within reasonable limits of error the total outturn of the agricultural industry can be considered to be a waste. The recommendation of Dr. Bowley and Mr. Robertson that the Jute[36] recording system of Bengal should be copied by all provinces for all crops, is worthy of immediate adoption in the provinces. Each field should be entered in a special register kept by the village accountant. Area, class of soil, crop, condition of crop, estimated outturn, and ascertained actual outturn should be recorded in the register. The standard yield should be revised in all cases and should be periodically checked by the staff of the Agricultural and not of the Revenue Department as at present. The village staff in this respect should be under the control of the Agricultural Department. Not only the greater accuracy of information, but also the justice of the tax system depends upon this reform which is overdue and the cost on which will be more than repaid in the shape of administrative efficiency and social justice.

Statistics and Welfare.

The maintenance of occupational and wage statistics for rural as well as for urban areas is also a matter which provincial administrations of the future ought more carefully to attend to. Each department coming in close contact with the economic life of the people should be instructed to maintain statistics of wage rates, and these should be regularly published. Price statistics which are now maintained in a very unsatisfactory form by the district authorities ought to be improved. The strengthening of the departments concerned by the appointment of statistically trained men is very essential. Many problems of economic and even political policy in India depend upon an accurate knowledge of wealth and income of the people, their distribution and variation.

36 *B. R. R.*, p. 40.

In a real sense of the word 'statistical' is the key service in administrative organisation. With growing responsibilities for the protection and welfare of the people the Indian governments, central and provincial, can ill afford to neglect the recommendations for reorganisation and extension made by competent Indian and English experts. If the governments play their part of organising the collection and dissemination of facts they may confidently count upon trained workers supplying the interpretations. The quintessence of all economic life and policy may be traced in national income. In bestirring themselves to improve the primary statistics the new administrations will not only be facilitating the work of the scholars, but they will be also improving the chances of their own material contribution to popular welfare.

THE SIZE OF COTTON MILLS IN INDIA

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The object of the present inquiry is to study the distribution of the size of the cotton mills in India, with a view to discover typical sizes, if any, and also to find out the nature of the distribution of the different mills about the types. For this study, the sizes of the cotton mills in the whole of India, as well as in important centres like Bombay, and Ahmedabad, have been considered separately in order to distinguish local divergences. The period under survey is the decade commencing with 1925, as that year is very important in the history of the Indian Cotton Mill Industry for several reasons. Up to that year, the industry had been slowly expanding, without any help from Government, and in spite of a heavy excise duty, mainly on the strength of the natural factors favourable to it. But it received help of the Government for the first time in that year, by way of suspension in the first instance, and abolition afterwards of the excise duty. There has been a phenomenal expansion in the industry since 1930 due to the National movement, the imposition of higher revenue and protective duties on the imports of foreign cloth, and some other factors. Hence a study of the size of the mills and also of the changes in magnitude, if any, during the above period is bound to reveal certain interesting facts about the industry.

Units of Measurement.

The obvious units that suggest themselves for a study of size are (1) the paid-up capital, (2) the number of spindles, (3) the number of looms and (4) the number of people employed. Paid-up capital is not a proper unit, because the amount of paid-up capital of a mill depends upon the method of financing it. In centres where industrial credit is cheap, the management may carry on business with less of owned but more of borrowed capital. The number of people employed also is unsuitable in making comparisons between different centres over a period of time, because the number varies according to the relative efficiency of people employed, the nature of the products of their

output, and the presence or absence of major labour troubles in some or all of the mills in the different centres. Hence in the following study, the number of spindles (no distinction being made between ring and mule spindles) and the number of looms in each mill, are taken as the units of measurement of the size. The data is collected from the Annual Reports of the Bombay Mill Owners' Association.

Spinning Section.

The following table gives the frequency distribution of the mills (working) according to the number of spindles possessed by each. Among them are included those which spin only and those which have got both spinning and weaving departments. The magnitude of the class interval is taken sufficiently large, because the distributions are uneven for a smaller class interval.

Table I.

Number of Spindles (in thousands).

Year	0—15	15—30	30—45	45—60	60—80	80—100	Above 100	Total.
Bombay								
1925	4	9	35	17	6	4	3	78
1927	5	12	34	16	7	5	1	80
1929	4	10	37	13	9	4	1	78
1931	3	9	32	14	9	2	1	70
1933	4	9	29	15	6	5	2	70
1934	4	9	28	13	7	4	3	68
Ahmedabad.								
1925	5	33	12	...	3	...	...	53
1927	5	34	10	...	3	...	...	52
1929	7	36	9	1	4	...	...	57
1931	7	36	17	2	3	...	...	65
1933	9	45	14	3	3	...	...	74
1934	6	50	15	2	3	...	...	76
Rest of India.								
1925	33	58	10	10	5	1	4	121
1927	42	65	17	10	4	...	4	142
1929	42	73	16	11	4	1	5	152
1931	37	66	11	17	5	2	4	142
1933	38	75	22	10	4	1	5	155
1934	43	78	22	13	2	2	4	164

Year All India.	0—15	15—30	30—45	45—60	60—80	80—100	Above 100	Total
1925	42	100	57	27	14	5	7	252
1927	52	111	61	26	14	5	5	274
1929	53	119	62	25	17	5	6	287
1931	47	111	60	33	17	4	5	277
1933	51	129	65	28	13	6	7	299
1934	53	137	65	28	12	6	7	308

From a glance at the table it will be noticed that whereas there has been a rapid increase in the number of mills in Ahmedabad and the rest of India, Bombay alone was recording a fall in number. The increase in the case of Ahmedabad is from 53 to 76, *i.e.*, 43 per cent, and in the rest of India excepting Bombay and Ahmedabad, it is from 121 to 164, *i.e.*, 36 per cent. The fall in the case of Bombay is from 78 to 68, *i.e.*, 13 per cent, thereby bringing the total increase in India from 252 to 308 or 22 per cent.

The following table II gives the percentage share of each class in the total for each of the centres in the two end years of the period, 1925 and 1934.

Table II.

Percentage share of each class interval in the total for each centre.

Year.	0—15	15—30	30—45	45—60	60—80	80—100	Above 100
Bombay							
1925	5	12	45	22	8	5	3
1934	6	13	41	19	10	6	5
Ahmedabad							
1925	9	62	23	...	6	...	...
1934	8	66	20	2	4	...	...
Rest of India							
1925	28	48	8	8	4	1	3
1934	26	48	14	8	1	1	2
All India							
1925	17	40	22	11	6	2	3
1934	17	45	21	9	4	2	2

From the above table it is obvious that there were no material changes in the structure during the period in any of the centres. But the relative importance of the several classes differs as between the different centres. In Ahmedabad, mills of medium size predominate, 85 per cent of them being of size 15 to 45

thousand spindles. Out of a total of 76 mills in 1934 there are only five which have more than 45 thousand spindles and there are none having above 80 thousand spindles. Even mills of very small size, *i.e.*, below 15 thousand spindles are too few, there being only about 6 or 8 per cent of the total. The maximum frequency is in the class 15 to 30 thousand which contains nearly two-thirds of the total number of mills; and the next highest is 30—45. In the case of the rest of India though the maximum frequency is in the class 15 to 30, that class contributes a little less than 50 per cent to the total. But there is a preponderance of very small mills, there being more than 28 per cent of the total in the class less than 15 thousand, and nearly three-fourths of the number of mills are below 30 thousand. There are, however, a few very big mills in different parts of the country, there being 6 mills of size above 80 thousand spindles. When we turn our attention to Bombay we find that there is a preponderance of mills of large size, nearly two-thirds of them being of size between 30 and 60 thousand, and the maximum frequency being in the class 30—45. But the dispersion of the number of mills in the several classes is more even in this case, all classes both high and low being represented in the frequency table. The above analysis clearly shows that the typical unit of Bombay is much larger than that of other parts of India.

The following table III gives the relative change in the number of mills in the different classes between the years 1925 and 1934.

Table III.

Changes in the frequencies of different classes between 1925 and 1934.

		0—15	15—30	30—45	45—60	60—80	80—100	Above 100
Bombay	No.	...	...	—7	—4	1	...	...
	%	...	...	—20	—24	17	...	...
Ahmedabad	No.	1	17	3	2	..	...	...
	%	20	52	25	...	...	...	...
Rest of India	No.	10	20	12	3	—3	1	...
	%	33	34	120	30	—60	100	...
All-India	No.	11	37	8	1	—2	1	...
	%	26	37	14	4	—15	20	...

The entire loss to the number of mills in Bombay is confined to the classes 30 to 45 and 45 to 60, the loss being 7 or 20 per cent and 4 or 24 per cent respectively. In Ahmedabad, the expansion is confined mainly to the class 15 to 30, the increase in mills being 17 or 52 per cent. As regards the rest of India, the increase in the number of mills is greatest in the class 15—30 there being an increase of 20 mills or 34 per cent. But the neighbouring classes 0—15 and 30—45 also recorded a fairly large increase by 10 or 33 per cent and 12 or 120 per cent respectively. In the aggregate we find that the increase in the number of mills in the whole of India is confined to the lowest classes, the maximum increase being in the class 15—30, which records an increase of 37 or 37 per cent; the two neighbouring classes less than 15 and 30—45 increased by 11 (26 per cent) and 8 (14 per cent) respectively. Thus we find that on the aggregate there has been a very great increase in the mills of medium and small sizes, this increase being more predominant in the former class.

Average Size and Dispersion of the Size about the Average.

The following table gives the average number of spindles in a mill in the several centres during different years. The type of average chosen is the median.

Table IV.

(,000 spindles)

	1925	1927	1929	1931	1933	1934
Bombay ...	41·4	40·4	40·3	41·0	41·6	41·5
Ahmedabad ...	25·0	26·5	24·2	25·8	24·5	24·8
Rest of India ...	22·2	21·8	22·1	20·2	23·0	22·6
All India ..	27·7	26·5	26·5	27·4	26·5	26·1

From this table it is clear that the average size is least (about 22·5 thousand) for the rest of India and greatest (about 41·5 thousand) for Bombay. Thus the average size of a Bombay mill is nearly twice that of an average mill in the rest of India. The average size of an Ahmedabad mill is about 25 thousand spindles, *i.e.*, 60 per cent of that of a Bombay mill. The average size for the whole of India is a little above that of Ahmedabad, being about 27 thousand.

The following table gives the quartile deviation of the spindlege of the mills of the different centres.

Table V.

(,000 spindles)

	1925	1927	1929	1931	1933	1934	Average
Bombay ...	11	11	11	11	12	13	11
Ahmedabad ...	7	6	6	9	7	7	7
Rest of India ...	8	9	9	11	9	9	9
All-India ...	12	12	12	12	11	11	12

This table shows that the dispersion is least for Ahmedabad and greatest for Bombay and Rest of India comes in between. This is clear from the frequency table because there is a very great clustering of mills about the average for Ahmedabad, with no frequency in the higher classes at all. For Rest of India though there is a preponderance of mills of low and medium sizes still there are some mills of very big size also. As regards Bombay they are spread throughout the whole range and hence the greater dispersion. The relative dispersion measured by the percentage of quartile deviation to the median is nearly equal in the case of Bombay and Ahmedabad, being about 27 per cent, but it is greater in the case of Rest of India where it is nearly 41 per cent. The relative dispersion for the whole of India works up to about 44 per cent.

Weaving Section.

The following table gives the frequency distribution of the number of looms in each mill in different centres. In this table, mills which weave only as also those which both spin and weave are included. The class interval is taken as 200 looms, because for a smaller unit the distribution are not even.

Table VI.

Frequency Distribution of Looms.

	1925	1927	1929	1931	1933	1934
Bombay						
0—200	...	...	...	...	...	...
200—400	1	2	...	...	...	1
400—600	9	8	11	11	10	9
600—800	14	16	13	12	13	15
800—1000	17	16	17	17	15	14
1000—1200	13	10	11	13	12	12
Above 1200	17	19	19	18	17	15
Total ...	71	71	71	71	67	66

Ahmedabad	1925	1927	1929	1931	1933	1934
0—200	1	5	2	2	1	1
200—400	15	12	13	14	13	12
400—600	15	18	19	24	27	27
600—800	12	10	15	17	20	20
800—1000	5	5	4	7	8	9
1000—1200	...	...	...	...	1	2
Above 1200	4	4	6	4	5	6
Total ...	52	54	59	68	75	77
Rest of India						
0—200	15	19	17	23	21	25
200—400	36	46	43	37	39	44
400—600	21	25	31	32	31	32
600—800	9	7	11	16	19	22
800—1000	5	6	7	8	7	8
1000—1200	3	4	6	4	5	7
Above 1200	9	11	8	10	10	10
Total ...	98	118	123	130	132	148
All India						
0—200	16	24	19	25	22	26
200—400	52	60	56	51	52	57
400—600	45	51	61	67	68	68
600—800	35	33	39	45	52	57
800—1000	27	27	28	32	30	31
1000—1200	16	14	17	17	18	21
Above 1200	30	34	35	32	32	31
Total ...	221	243	255	269	274	291

The number of weaving mills in Bombay was constant from 1925 to 1931, but, surprisingly enough, during the later years when indigenous production of cloth was on the increase, the number of weaving mills recorded a fall from 71 to 66, *i.e.*, by about 7 per cent. In Ahmedabad there has been a gradual increase in the number of mills from 52 in 1925 to 77 in 1934, *i.e.*, by nearly 50 per cent. As for the Rest of India there is an increase of nearly 50 per cent from 98 to 148. In the aggregate, the total increase for All-India is from 221 to 291, *i.e.*, 32 per cent.

The following table gives the percentage share of each class in the total, for each of the centres in the two end years of the

period, 1925 and 1934. This will give an idea of the change (if any) in the structure of the industry during the period.

Table VII.

		0—200	200—400	400—600	600—800—	800—1000	1000—1200	Above 1200
Bombay.								
	1925	...	1	13	20	24	18	24
	1934	...	1	14	23	21	18	23
Ahmedabad.								
	1925	2	29	29	23	11	...	8
	1934	1	16	35	26	12	3	8
Rest of India.								
	1925	15	37	22	9	5	3	9
	1934	17	30	22	14	6	4	7
All India.								
	1925	7	24	20	16	12	7	14
	1934	9	19	23	20	11	7	11

From the above table we find that in Bombay the frequencies are mainly confined to the upper classes, there being no well-defined 'modal' class. In 1925, class 800—1000 had the maximum frequency, having 17 mills or 24 per cent of the total. But the 3 classes, 600—800, 800—1000 and 1000—1200, are more or less equally important, contributing between them more than 60 per cent of the total frequency. By 1934 the mode shifted to the lower class, the difference between the frequencies of these 3 classes being still very small and the above three classes again contributed more than 60 per cent of the total. The most significant fact is that there is only one mill having looms less than 400. If we now turn our attention to Ahmedabad, we find that the frequencies are concentrated at the medium size, *i.e.*, between 200 and 800, these three classes being responsible for nearly 80 per cent of the total number of mills. But whereas in 1925 there was no well-defined modal class, the frequencies in 200—400 and 400—600 being equal and closely followed by the next class, by 1934 the class 400—600 emerged as a modal class with 35 per cent of the total frequency, followed by the next class contributing 26 per cent of the total. As regards the Rest of India, the frequencies are confined mostly to the lowest part of the scale, 74 per cent of the mills in 1928 and 69 per cent in 1934 being of size less than 600 looms. But in both years there was a well-defined modal class in 200—400. There were

a few mills of very large size also. Here again we find that the typical unit of Bombay is of large size, Ahmedabad medium size and Rest of India of small size.

The following table gives the changes in the frequencies of the different classes.

Table VIII.

	0—200	200—400	400—600	600—800	800—1000	1000—1200	Above 1200
Bombay.							
No.	...	...	...	1	—3	—1	—2
%	...	...	...	7	—18	—8	—12
Ahmedabad.							
No.	...	—3	12	8	4	2	2
%	...	—20	80	67	80	...	50
Rest of India.							
No.	10	8	11	13	—3	1	...
%	33	22	52	30	—60	100	...

From the above table we find that the loss of mills in Bombay was confined to the classes of largest size having more than 800 looms. As regards Ahmedabad the expansion is mainly in the classes 400—600 and 600—800, whereas there are increases in the higher classes also. But we find that in the Rest of India the expansion is confined to the lowest 4 classes only, and no class predominates very much over the rest. Hence we find that in Bombay the failures are confined to members of the largest classes; in Ahmedabad mills of medium and a few of large size have sprung up; whereas in the Rest of India, mills of small and medium size are proving favourites.

Average Size.

The following table gives the median of the looms of mills in the different regions.

Table IX.

(,00 looms)

		1925	1927	1929	1931	1933	1934
Bombay	...	9·4	9·2	9·4	9·5	9·5	9·2
Ahmedabad	...	5·4	5·2	5·6	5·5	5·8	5·9
Rest of India	...	3·9	3·8	4·1	4·3	4·4	4·3
All India	...	5·9	5·5	5·7	5·8	5·9	5·9

We find that in Bombay the average mill has about 940 looms; the values in different years fluctuating about this figure. The average for Ahmedabad shows an increasing tendency from about 540 in the beginning to nearly 600 at the end of the period. Similarly for Rest of India the average has been increasing from a little below 400 to above 400. As regards All-India the average is about 580. Thus as in the case of spinning, the average weaving section is the greatest in Bombay and the least for Rest of India, and Ahmedabad comes in between them.

Dispersion.

The following table gives the quartile deviation of the looms of mills for different centres.

Table X.

(,00 looms)

		1925	1927	1929	1931	1933	1934
Bombay	...	2·4	2·5	2·5	2·5	2·5	2·5
Ahmedabad	...	1·8	1·8	1·7	1·7	1·6	1·7
Rest of India	...	1·9	1·8	1·9	2·1	2·2	2·3
All India	...	3·0	3·0	2·8	2·6	2·5	2·5

As in the case of spinning, dispersion is greatest for Bombay, being about 250 looms, and least for Ahmedabad, where it is about 170 looms. Rest of India comes in between with an average of about 200 looms. Relative dispersion ($100 \times$ median —quartile deviated) is lowest for Bombay being about 26 per cent, and highest for Rest of India, being about 50 per cent. Ahmedabad comes in between with a value of about 30 per cent.

Conclusion.

From a glance at the frequency distributions of the mills, (both in regard to number of spindles and number of looms) in Ahmedabad, we find that the curves reach the modal value very rapidly, and go down to the higher sizes very slowly. The range of variation is comparatively smaller. In the case of other parts of India also the same phenomenon applies, except for the fact that the range of variation is greater and hence the descent of the curve is more slow. This abrupt rise is due to the fact that the modal value is very small. But for Bombay the " mode " of the distribution is sufficiently large, and so the curves gradually reach the modal value and fall down to higher sizes. Here too

the downward trend is comparatively slower, and extends much farther. These facts readily indicate the average size and dispersion for the different centres. These average sizes may be called the typical sizes.

The conception of "typical or representative firms" is due to Dr. Marshall who elaborated it in his theory of value and of Production. "The existence in industries of adequate size, typical or representative magnitudes is quite familiar to all economists. The magnitude of the typical mill and the dispersion of the different units about the type depend upon a number of factors, namely, the character of the people engaging in the industry, its geographical surroundings and its general economic setting (including the degree of development of commercial functioning)."[1] Hence the typical unit in a certain locality at a particular period may not be the typical unit at the same period in another locality and even in the same locality at a period far distant from the first. The typical size in any locality at a particular period may be said to result from the several factors enumerated above.

The above analysis of the distribution of the size of cotton mills in India points out two important facts, namely, (1) the existence of a typical size for each centre and (2) the existence of local diversities of these types. During the decade in question, the average size of the spinning section for the whole of India varied between 26·1 and 27·7 thousands of spindles. For Bombay it varied between 40·3 and 41·6 thousands of spindles, for Ahmedabad between 24·2 and 26·8 thousands and for Rest of India excluding Bombay and Ahmedabad between 20·2 and 23·0 thousands. The corresponding variations for weaving section are between 550 and 590, 920 and 950, 520 and 590, 380 and 430 looms for All India, Bombay, Ahmedabad and Rest of India respectively.

We find that both in the spinning as well as weaving sections there are obvious and significant differences in the averages of the different centres. Average size of a Bombay mill is highest, Ahmedabad mill medium, and Rest of India smallest of the three. In fact the size of an average mill in Ahmedabad is about three-fifths of that of an average mill in Bombay and that of the Rest of India about half that of Bombay. The causes for these differences can easily be explained by the following facts:

1 *Vide* "The Sizes of Business mainly in the Textile Industries" by Prof. S. J. Chapman and Mr. T. S. Ashton in the *Journal of the Royal Statistical Society*, Vol. LXXVII, p. 513.

(1) Bombay has been the leading centre of cotton mill industry from the beginning. The first mills there were started by big capitalists who made large fortunes in the trade of raw cotton during the American War of Independence. They had a sufficiently high degree of managing ability and so started big units. On the other hand the smaller units in Ahmedabad and other places were started by smaller capitalists of average ability which set a limit to the size of a mill that can be efficiently controlled by the manager. (2) For a long time, the prosperity of the Bombay mills depended upon the large amount of export trade in coarse yarn with China and Japan. Mills of big size are eminently suitable for this purpose, because large quantities of particular types of goods are required to be manufactured for meeting the demands of export trade. At first many of these mills were intended for spinning only, but after they lost their export trade in yarn they expanded their weaving sections and the high average size of spinning sections necessitated high average weaving sections also. On the other hand the mills in Ahmedabad, etc., were intended to cater to local demands, and so were necessarily small. (3) The overhead charges consisting of the cost of power, rent, taxes, etc., are higher in Bombay than in Ahmedabad and other parts of India, and so to keep down the cost of production of a unit, the mills had to be sufficiently large. (4) Another important cause is to be found in the widely differing methods of promoting and financing a mill prevalent in each centre. "In Ahmedabad the cotton mills are organised on lines more or less resembling the private limited liability type, wherein most of the shares are held by the managing agent and a few friends who have confidence in him; and they depend for their working capital on public deposits which again depend on the confidence of the public in the managing agent. Naturally this sets a limit to the size of the unit. On the other hand, the Bombay mills are floated on the lines of the public joint-stock companies and the activity of the share broker on the stock exchange and the readiness of the public and banks to deal with these mills made the question of financing the bigger mills easier."[2]

But the disadvantages of smaller units in Ahmedabad and other centres in India are counterbalanced by very important advantages they possess over Bombay in other directions. It has already been pointed out that the overhead charges are smaller for these concerns than for those at Bombay. Their proximity

[2] *Vide* Dr. P. S. Lokanathan's Industrial Organisation, p. 95.

to cotton-producing areas and cloth-distributing centres gives them a decided advantage over those in Bombay in the matter of railway freights which form not an unimportant part in the total cost. Moreover in the case of internal competition smaller units will have the greater advantage of being able to readily alter the varieties of their products to suit changing public tastes; and this coupled with the possibility for closer supervision and attention paid by the managing agent gives them an advantage over very big mills which will be successful only in producing stereotyped products. These arguments again explain the difference in the average size of mills in Ahmedabad and Rest of India. Because the mills in the former centre have to cater to the needs of distant provinces, the average size of those mills need necessarily be greater than those of the local mills in different parts of the country which cater to the needs of those particular localities.

In the above paragraphs the existence of typical mills in each centre and the causes for the difference between the sizes of the typical mills in different centres have been explained. It should be noted that in times of rapid changes, these typical sizes alone show the maximum fall or rise. For example, between 1925 and 1934 there has been a fall in the number of mills in Bombay. It will be noticed that the fall is greatest in the typical class of "large size" and especially in the "modal class." The factors that contributed to make the larger sizes typical lost their force, and hence there is a greater deterioration in those classes. Mills of medium size are eminently suitable to the changed conditions, and hence such mills are able to maintain themselves. On the other hand, Ahmedabad and other centres are rapidly increasing their number of mills, and it is seen that the maximum expansion is found in the typical classes for these centres. Some factors are responsible to make those classes typical for those centres, and naturally the greatest expansion is found in those classes.

As regards the dispersion of the mills about the types, the very factors which determine the average size for a particular centre determine the dispersion for that centre. For success in an enterprise a minimum standard of managing ability is required, and the higher the standard of ability of managers in particular centres, the greater is the scope for greater dispersion, because the range of variation of the size of mills that could be started in that centre will be great. (Of course, this statement is subject to the other factors which determine the size of a mill.) Similarly, a minimum amount of fixed and floating capital is necessary for starting a mill and keep it going; and the maximum

amount of resources that can be pooled for an individual unit in a centre determines the size of the biggest mill in that centre. Now comparing the different centres from these two aspects, it has already been pointed out that the upper limit is smaller for Ahmedabad than for Bombay. Hence both the average size and dispersion are smaller in Ahmedabad than in Bombay. But the relative dispersion is nearly equal in these two centres. On the other hand, though in most of the other parts of India, managing ability and financial resources are not very great, still in some important centres like Madras, Calcutta, etc., there are certain individual firms which have special facilities in both these respects. Hence though the average for the Rest of India (excluding Bombay and Ahmedabad) is very small, the dispersion is greater than in Ahmedabad and this coupled with the small average size makes the relative dispersion greatest for the three centres.

The differences in dispersion can be explained in another manner. The object of an *entrepreneur* is to make the maximum amount of profit possible for a particular business. That profit can be gained by organising the business on a very large scale and taking smaller profits per unit, or by organising the industry on a small scale and taking larger profits per unit. Many factors operate in enabling him to gain his end, and the size of his unit depends upon his calculations regarding the effects of the several factors and fixing upon the best size he expects to suit him. So the relative importance of these several factors to different individuals bring about the differences in the sizes of the different mills. As has already been pointed out, the special features of Bombay and some other parts of the country gave a wider margin for these variations, and hence the dispersion of the mills about the average is greater in those centres. On the other hand the margin is very little for Ahmedabad, and hence all the mills are clustered round the average and the dispersion is least.

SOCIAL INSURANCE

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Social insurance embodies an ideal of social justice foreign to the advocates of *laissez faire* policy which dominated the field throughout the eighteenth and the nineteenth centuries. "The public good," wrote Blackstone, "is in nothing more essentially interested than in the protection of every individual's private rights." To Blackstone's contemporaries it seemed self-evident that liberty is the absence of restraint and that every man, if left perfectly free to pursue his own interests, will be led by an invisible hand to promote the interests of society. Every man was presumed to know his own rights and to be equally capable of maintaining them. Difference of wealth, rank and education were looked upon as God-given inequalities which the state had no right to curtail or neutralise. Equality before the law was deemed all-sufficient to secure the ends of justice. Government had only to preserve the peace and prevent force and fraud.

It is in keeping with this, let alone, policy of social relationship that the individual workman shall take upon himself the risks of his employment. Bodily injury, unemployment and early superannuation are incidents of the trade which a reasonable man should expect to encounter when he takes up his service. It is open to every man to choose his own occupation, to quit any service which he finds dangerous or disagreeable and to exact a wage which will enable him to provide against contingencies of sickness, accident, premature death, unemployment and old age. The employer has no responsibility beyond the payment of the market rate of wages. The cash nexus is the sole recognised bond of union.

But the times have changed and so has the public opinion. This untrammelled individualism has given place to a sense of social solidarity. With the growth of democracy, the Governments are more and more concerning themselves with measures designed to promote the general good by putting restraints upon the pursuit of pure self-interest. Both by the extension of the police power and by the principle of collective responsibility, the modern state seeks to secure the health, safety, comfort and

education of all its citizens. In no field of economic relationship have the new ideals of social justice enforced a more drastic reconstruction of traditional views than in that of employer's responsibility for his employees. The contingencies of death, disablement, disease in the course of work, unemployment, etc., are imposed upon the wage-earner by the organisation and conduct of modern industry. That the wage loss which results from these contingencies should be shifted from the individual workman to the employer and through him ultimately to the general body of consumers is a doctrine already accepted by the major part of civilised mankind.

Prof. Taussig says: When once the possibility of dealing with them on actuarial principles is clear; when it is certain that workmen themselves will not insure; and when the sense of social sympathy and duty becomes so strong that provision of some sort is insisted on—the only solution is to make the employers responsible. Let them do the insuring, paying premiums from time to time which will enable a death benefit or pension to be paid to the widows and orphans, or a pension to the disabled workmen themselves. The premiums required, if paid uniformly by all employers of a given trade, will enter into expenses of production of all and will affect in corresponding degrees the prices of commodities sold. Such a plan will have far-reaching effect only if it is made of compulsory application, and if the mere fact of employment fixes the obligation of the employer, irrespective of any agreement between him and the employee.[1]

One may ask as to what are the risks of employment due? The fact to be universally observed in the modern industrial organisation is the inherent trend of industry to increasing scale, complexity and speed of operation, increasing use of machinery, increasing weight of materials and products, increasing substitution of unskilled for skilled workmen, and increasing control of absentee capitalists with an eye primarily to net profits—each an independent cause of greater accident frequency and all co-operating to enhance the hazards of industrial pursuits.

Everywhere the small establishment is a dwindling factor in production and everywhere hand methods are falling into desuetude. The machine technology which more and more prevails in modern industry makes use of stupendous forces—steam, electricity, explosives, chemical reagents—forces that multiply human power a thousand-fold while kept in leash, but

1 Vide *Principles of Economics*, Vol. II, pp. 353-354.

are equally potent for destruction when out of command. These titanic agencies are turned to account by a vast aggregation of machinery which the individual workman can neither comprehend nor control, but to the movements of which his own must closely conform in rate, range and direction. Nor is the worker's danger confined to the task in which he is himself engaged nor to the appliances within his vision. A multitude of separate operations are united into one comprehensive process, the successful consummation of which requires the co-operation of thousands of operatives and of innumerable pieces of apparatus in such close interdependence that the hidden defects of a minor part or the momentary lapse of memory or attention by a single individual may imperil the lives of hundreds.

The common man is neither an automaton nor an animated slide rule. His movements fall into a natural rhythm, indeed, but the beat is both less rapid and more irregular than the motions of machine, with the consequence that he fails to remove his hand before the die descends or allows himself to be struck by the travelling crane. Fatigue also overcomes him, slowing his movements, lengthening his reaction time and diminishing his muscular accuracy, thereby enhancing his liability to accident.

This shows that the human organism is imperfectly adapted to a mechanical environment. The requisite adjustment is not likely soon to be attained, because the mechanisation of industry proceeds faster than the process of habituation. Therefore industrial accidents on a tremendous scale are a permanent feature of modern industrial life.

Since disabling injuries by accident and disease are inevitable concomitants of that mechanical industry which has made civilisation possible and the products of which are employed in fullest measure by the classes least exposed to its hazards, since the victims of these injuries are precisely those least able to bear the burden of economic loss themselves or to shift it to others, since the resultant evils of poverty affect not alone the families immediately concerned but the state as well, and since the whole pecuniary cost of work injuries can be so distributed as to be little felt by anyone, the public opinion has almost everywhere come to hold that those who are crippled in the production of the community's wealth, and the dependents of those who are killed, have a right to indemnity from the public for whom they wrought.

The employers, in our modern system of management, are the keeper of the purse; it is their function to assemble the instruments of production and to cover the expenses thereof

from the price of the product. If, then, the employer is held legally responsible for death or disability in the course of employment, he will protect himself by insurance against unusual loss and will incorporate the prevalent cost of industrial injuries in the price of goods and services. This method secures the widest, the least burdensome, and perhaps on the whole the most equitable distribution of the cost of industrial accidents and disease.

Thus, the elimination of the risk of the individual is the basic idea of insurance. The loss suffered by an individual is lessened by distributing the burden over the group liable to such loss. Insurance of any kind, therefore, is primarily the effort of the social group in place of the individual effort, to lessen the incidence of loss on the individual. Bearing a small fraction of that loss at stated intervals hardly produces any perceptible effect on the individual; while a case of total actual loss though it may occur after years, is more distressing and produces more social discomfort. Irregularity of earnings is a much more frequent cause of distress than are earnings absolutely small. For our present purpose, however, we take social insurance in a limited sense. By social insurance we mean the insurance of the risks of workmen's lives—the risks which would deprive the workmen of their earning capacity. Rubinow has classified these risks as follows: (1) Absence of a worker in the family. (2) Physical inability to perform labour, either because of illness or accidental injury or chronic invalidity or physical deterioration accompanying old age. (3) Inability to find employment because of lack of adjustment between demand and supply in the labour market.

Social insurance alleviates the sufferings of the individual from the particular event, but it does not prevent it. It is indeed when prevention is impossible or nearly so that insurance has its greatest appeal. Even compensation, which is an important part of social insurance, is remedial rather than preventive. It aims to relieve the suffering of the injured workman, to restore earning capacity as far as possible, and to make good to himself and to his dependents the wage loss which results from his disability or death. Social insurance may, therefore, lessen industrial accidents and diseases, by better distribution of business and production throughout the year may result in better provision of hospital and medical facilities so as to lessen sickness; but accidents, unemployment and sickness remain. It is clear therefore that social insurance is a double blessing, excepting in the case of death benefits; it reduces the actual suffering of the individual as well as the evil to the community.

Having emphasised the importance and necessity of social insurance we shall now proceed to examine the progress it has made in India. Accidents during employment were the first to be insured against in every country and so also in India. Doubtless there is no Insurance Act in this country, but we have a Compensation Law, leaving employers to insure against their own liability.

Here it needs be noted that the general trends in Workmen's Compensation indicate a growing conviction of the fact that in principle the worker's right to compensation is the same, whether the undertaking is large or small, whether the work carried on there be considered as dangerous or as involving only an insignificant risk, whether the undertaking be industrial, commercial or agricultural, whether the worker's pay is low or high, whether or not he is a manual worker, and, finally, whether he is the victim of an industrial accident or an occupational disease.

Before the Workmen's Compensation Act was passed in India, it was impossible for an injured workman to recover any damages or compensation for any injury sustained by him in the ordinary course of his employment, except on the rare occasions when his employer was liable to common law for his own personal negligence and the dependents of a diseased workman could, in rare cases, claim damages under the Indian Fatal Accidents Act of 1855, if the accident was due to the wrongful act, neglect or fault of the person who caused the death. The Indian workmen, therefore, worked under considerable disadvantage due to complete absence of any provision for their family if any accident occurred. The Workmen's Compensation Act has gone a great way in removing this insecurity and uncertainty. Under the Act, payment of compensation upon well-defined scales is made obligatory upon all employers whose employees are covered, even in cases where there is no negligence, and injured workmen, or the dependents of those killed, may now obtain compensation in all cases where personal injury is caused by accident arising out of and in the course of employment with the exception of certain accidents directly attributable to misconduct, breaches of rules and orders and disregard of safety devices.

In India, for the first time, the Workmen's Compensation Act was passed in 1923 and came into force from 1st July 1924, and since its inception it has proved an unqualified success. The Act has been amended twice prior to the year 1933; an important amendment was made in 1926 in support of the ratification of International Labour Convention, and in 1929 several other changes of a non-controversial nature were incorporated. The

main principles of the Act have remained unchanged. Neither was the scope of the Act appreciably increased nor was any general increase made in the scale of compensation payable.

Though drafted on the British model, the Indian Workmen's Compensation Act is very different in its nature and scope from the British Act. It is extremely rigid and essentially arbitrary in its operation. The scales of compensation prescribed therein remarkably bear out its inelastic character. Another important feature of the Act to be noted is the reservation of the settlement of disputes to specially appointed Commissioners, who are entrusted with wider powers than those granted to civil courts and follows specially prescribed procedure.

As for the working of the Act it had a smooth sailing and fortunately most of the apprehensions harboured during the initial stages have been falsified by the subsequent events. As the Labour Commission remarks, "the Act has proved remarkably smooth in its operation, litigation has been confined to most reasonable dimensions, and the compensation has been secured for a large and increasing number of workmen with a comparatively small amount of expense and delay."[2] It may, however, be pointed out that the illiteracy and the poverty of the working class has stood in the way of the success of the Act and the workpeople have not been able to avail of the facilities provided by the legislature.

Further, the Act is limited in its scope. The definition of "workman" is not sufficiently wide in its scope. The Labour Commission has therefore rightly emphasised the need for a gradual extension of the scope of the definition. "We consider that the method of advancement should be to include first workers in the organised branches of the industry, whether these are hazardous or not, and secondly to extend the Act gradually to workers in less organised employments, beginning with those who are subject to most risk."[3]

A Bill to amend the Workmen's Compensation Act along the lines of the recommendations of the Labour Commission was introduced in the Legislative Assembly in 1932, and, after being circulated for opinion and referred to a Select Committee for report, it was, with a few minor modifications, finally passed into a law in September 1933, and is termed as the Workmen's Compensation Amendment Act, 1933. It has come into operation with effect from 1st January 1934, but the provisions regarding

2 Vide *Report*, p. 296.

3 *Ibid.*, p. 298.

the new scales of compensation payable and the new classes of labour covered have come into force from the 1st July 1934.

Not only has the amendment Act introduced wide changes in the underlying principles governing the grant of compensation but it has also increased, very considerably indeed, the scales of compensation payable, the increases in the scales of the highest and lowest paid employees being approximately 100 per cent and an increase of approximately 40 per cent on an average for all employees.

The new Act has made the compensation important to almost all classes of employers, while formerly few came within its scope. Among those included in the amended Act are persons employed in the smaller factories even if they contain no machinery; all employees, except those in the clerical capacity, on any estate planting tea or coffee, or rubber, or cinchona, and on which at least 20 persons are employed; persons employed in connection with operation or maintenance of all mechanically-propelled vehicles, including drivers of private motor cars; persons employed in the handling of transport within the limit of any port of goods which have been discharged from or are to be loaded into any vessel; persons employed in the construction, repair or demolition of dams or embankments of at least twenty feet in height; persons employed in the making of any excavation on which at least fifty persons are employed; masters and seamen of all ships propelled by some form of mechanical power; persons employed in the operation of any ferry boat capable of carrying more than ten persons, and all persons employed in both producing and exhibiting to the public cinematograph pictures. Thus, labourers numbering over two millions have been brought within the scope of the legislation. The workers covered are those who draw monthly wages not exceeding Rs. 300 in the occupations enumerated in the Act.

The Act lays down that " if personal injury is caused to a workman by accident arising out of and in the course of his employment " his employer shall be liable to pay compensation in accordance with the provisions of the Act, with the exception that (1) no compensation is payable in respect of any injury which does not result in total or partial disablement for a period exceeding seven days; and (2) in respect of any injury, not resulting in death, caused by an accident attributable to:—

(1) The workman having been at the time of the accident under the influence of drink or drug; (2) wilful disobedience to an order expressly given or to a rule expressly framed for the purpose of securing the safety of workmen; or (3) wilful removal

or disregard by the workmen of any safety guard or any other device which he knew to have been provided for the purpose of securing the safety of workmen.

The Amendment Act of 1933 has made very considerable alterations in all the scales of compensation payable as well as in the waiting period. These new scales have come into operation from July and are applicable only in respect of accidents occurring on or after that date. No employee has any legal right to draw his ordinary monthly wages as, upon meeting with an accident, he becomes entitled to compensation under the Act and his employer has the right to discontinue paying his wages until he resumes his normal duties, or is fit to do so. The amount of compensation is based entirely on the earnings of the deceased or injured workman prior to the accident. The scale of compensation varies according to the nature of injury and the wages received by the workman.

There has been substantial increase in the amount of compensation payable under the new Act. Taking up the compensation for death we find that previously the minimum compensation payable was Rs. 240 and maximum Rs. 2,500 but today we have a minimum of Rs. 500 and maximum of Rs. 4,000. The compensation payable must not, in any circumstances, be paid direct to the dependents but must be deposited with the Special Commissioner for Workmen's Compensation appointed for the area in which the accident occurred. Any payment made directly by the employer, with the exception of funeral expenses and certain advances, is not deemed to be a payment of compensation at all. An employer will be called upon to the whole amount of compensation over again if he makes any settlement direct with the dependents.

As regards the permanent total disablement, the compensation payable previously was minimum Rs. 336 and maximum Rs. 3,500 compared with Rs. 777 and Rs. 5,600 respectively payable today. But before we proceed ahead it is necessary to understand the exact import of permanent total disablement. By "permanent total disablement" is meant such disablement which permanently incapacitates a workman for all work he was capable of performing at the time of his accident and includes, *ipso facto*, permanent total loss of sight of both eyes. Any combination of injuries totally 100 per cent or more loss in earning capacity is regarded as permanent total disablement even if the combination of injuries does not arise in one accident. For instance, if one-armed man loses the other arm in a subsequent accident, the employer will be held liable to pay compensation for permanent total

disablement. Similarly, if one-eyed man meets with subsequent accident, causing complete loss of vision of his only good eye, the employer, in whose employment the subsequent accident occurs, is liable to pay compensation for total permanent disablement, notwithstanding any payment made in respect of the previous injury and irrespective of whether the previous injury occurred in the employment of the same employer or otherwise.

The provisions relating to permanent partial disablement are no less important. In the schedule 1 of the Act an attempt has been made to specify the more common permanent injuries to which workmen are generally liable. These injuries are deemed, *ipso facto*, to result in permanent partial disablement, even though the earning capacity of the workman may not be reduced as a result thereof, and the extent of such disablement is expressed in percentage of loss of earning capacity. These percentages are percentages of the compensation which would be payable in the case of permanent total disablement. They are arbitrary calculations, but in practice provide a very equitable basis of rapid settlement of claims and cover the vast majority of cases.

The payment of compensation allowance is also regulated. If the recipient of the lump sum is an adult male, the payment may be made direct to the workman but at the same time, it is necessary to draw up a memorandum of agreement setting forth the terms of the settlement which must be approved of and registered by the Commissioner, either before or after the payment is made. Any employer who fails to register an agreement as prescribed by the Act is subject to heavy penalty which may extend to one-half of compensation paid. Lump sum compensation payable to a woman or a male person below the age of 18 years must be deposited with the Commissioner for distribution or payment by him and no such payment made directly by an employer is deemed to be a payment of compensation. Thus, if any such sum is paid direct the amount will have to be paid again.

The amount payable for temporary disablement may now be taken into consideration. The Act provides for payment of full wages in the case of all adults earning up to Rs. 10 per mensem while those earning more than Rs. 10 receive payments varying from approximately two-thirds to half wages, subject to a minimum of Rs. 10 per mensem and a maximum of Rs. 60 per mensem. Before the Amendment Act, however, the minimum monthly compensation payable was Rs. 4 and the maximum Rs. 30. The compensation payable to a young person in the case of temporary disablement is full monthly wages, subject to a

maximum of Rs. 60 per month. The compensation is payable in two half monthly instalments, the first falling due on the twenty-third day after the date of the accident or the disablement, as the case may be, and represents compensation for fifteen days, *i.e.*, from the eighth to the twenty-second day of disablement. Thereafter, half monthly compensation must be continued during the period of disablement, subject to a maximum of five years.

When a workman receives injury " arising out of and in the course of employment, he is required to give notice, in writing, of its occurrence to his employer as soon as possible after the accident and before he has left employment in which he was injured. The Amendment Act empowers the Local Governments to require employers to maintain at their premises a Notice Book which must be readily accessible at all reasonable times to any injured workman employed on the premises, or to any person acting *bona fide* on his behalf. Further, under the Amendment Act, the want of or any defect or irregularity in a notice of the accident is not a bar to the maintenance of proceedings for recovery of compensation provided the claim is made in respect of a fatal accident or if the employer had knowledge of the accident.

The Commissioner is given power to try and decide any claim to compensation in any case, notwithstanding that the notice prescribed has not been given, if he is satisfied that the failure to give notice was due to sufficient cause. It is, therefore, essential that the employer should take steps to ensure that every accident, however trivial the injury, is brought to notice and workman should be instructed to report all accidents. Thus, all genuine accidents will be recorded and minor injuries will be promptly attended lest they should tend to become aggravated due to lack of proper medical treatment. Provision has also been made for cases where an injured worker refuses to be attended by a qualified medical practitioner whose services have been offered to him free of charge, or where the workman deliberately disregards the instructions of such practitioner. If, owing to his refusal to submit to proper treatment, his injuries become aggravated, he will only be entitled to the compensation which would have been due if he had received regular and proper medical treatment.

Under the Amendment Act, every employer, whose employees are protected by the legislation, is required to forward a notice of every fatal accident occurring on his premises, which results in death, to the Commissioner for Workmen's Compensation. This notice must be sent within seven days of the date of the

death and the report must give the circumstances attending the death. Upon receipt of such notice, or upon receipt of information from some other source that a workman had died as a result of an accident, the Commissioner is empowered to send by a registered post a notice to the employer requiring him to submit, within 30 days, a statement in the prescribed form, giving the circumstances attending the death of the workman and indicating whether, in the opinion of the employer, he is or is not liable to deposit compensation on account of the death. If the employer is of opinion that he is liable to deposit compensation, he is required to make the deposit within thirty days of the service of the notice. If, on the other hand, the employer is of opinion that he is not so liable, he is required to indicate in his statement the grounds upon which he disclaims liability and, in this event, the Commissioner is empowered to inform the dependents of the deceased that it is open to them to proffer a claim for compensation and he may also give them such other further information and assistance as may be necessary to enable them to make the claim. These new provisions impose strict obligations upon the employer to report fatal accidents and to forward, within the stated time, a statement admitting or denying the liability, and the failure to abide by these provisions of the Act is met by penalties to be adverted to later. The object is to ensure that compensation is paid in every fatal accident in which it is due and thus prevent liability especially on the part of small employers. The dependents of a deceased workman are also protected against the possibility of their not instituting a claim within the prescribed period of six months from the date of accident. The Amendment will also prevent any employer from making a settlement direct with the dependents out of court, any such settlement being illegal.

Under the Amendment Act severe penalties have been laid down, for the failure, on the part of the employer, to carry out some of the more important provisions of the Act, namely, if the employer:—(*a*) Fails to maintain a Notice Book for accidents which he is required to maintain; (*b*) Fails to send to the Commissioner a report of any fatal accident occurring on his premises; (*c*) Fails to send to the Commissioner a statement regarding liability for a fatal accident; and (*d*) Fails to make an annual return showing the number of accidents which have occurred during the year and the amount of compensation paid in respect thereof. The maximum of penalty for any of the offences is Rs. 100. It is needless to add that these penalties are designed to prevent evasion of liability.

The insurance facilities have considerably helped the employers to meet their liability under the Workmen's Compensation Act. As a matter of fact, the Government of India in framing the Act intended that employers, having the instance of other leading industrial countries before them, would insure their liability, and fortunately all the leading insurance companies have co-operated to provide facilities to meet the requirements of the employers in this respect. The insurance company accepts the employers' liability under the Act in full. Therefore most of the large employers are insured. But the smaller employers and indeed a very large number of them are not yet insured.

Before we close mention should be made of the Indian Fatal Accidents Act. This Act applies only to fatal accidents and provides specifically for the payment of damages by any person who by wrongful act, neglect or default, causes the death of another person. It gives to certain relatives of the person killed a right to claim damages in their own name if the person's death was due to the negligence of the employer, or any other person, and thus extends the principle of Common Law by giving to the relatives a right to bring an action for damages against the employer which the deceased might have brought under the Common Law had he lived. The damages are for the benefit of the wife, husband, parents, and children of the person whose death has been so caused. There is no fixed scale of damages and no maximum but the damages are assessed in accordance with the pecuniary loss occasioned to the relatives named by the deceased and are based upon the earning capacity of the deceased during the normal expectation of his life prior to his death. The damages when awarded are invariably considerable. The Act is not confined to classes of workmen covered by the Workmen's Compensation Act only but applies to any person employed in any capacity.

This leads us to the question whether the Workmen's Compensation has led to insurance. Except in Bombay, the employers generally bear their own liability. In Bombay, the millowners have found a Mutual Insurance Association, which insures the compensation liability of its members. The advantages of this scheme are very obvious; it is beneficial to all the parties concerned. The employer being free from his liability, he does not contest the claim of his employee, per contra, he sees that his employee is adequately compensated. This reduces enormous friction between the employer and the employee. Further, even in the case of insolvency of the employer the workmen would not be in an uncertain position if the employer has already

insured. It is therefore to be regretted that in India compensation has not led to insurance. In this connection it should be noted that in Japan the Health Insurance Act makes insurance compulsory for persons working in mines and factories to which mining and factory legislation applies. Therefore in India also legislative provision should be made for compulsory insurance so as to give adequate protection to all the parties concerned.

Sickness is another most important risk to be insured against. "Insurance against sickness," says Prof. Taussig, "is as feasible as insurance against accident. It is even more feasible, since longer observation has supplied more adequate data on the frequency of illness in great modern communities, and on its greater frequency with advancing age; while progressive gain in ways of healthful living has introduced a factor of safety which is not found in accident insurance."[4] Sickness, especially in the labouring classes, has been recognised as the prime cause of suffering and destitution in all countries. In India where sickness and disease are rampant, the need for insurance is all the more pressing. But in spite of this, sickness insurance is marked by clear absence in India. In Japan, on the contrary, the Health Insurance Act has entirely revolutionised insurance facilities in general and sickness insurance in particular. Under the Act insurance has been organised on a double basis. The insurance carriers are (1) health insurance societies and (2) health insurance offices or the state. Health insurance societies are a new variant of the mutual aid societies which have long existed in Japan. A voluntary society may be set up in an undertaking where not less than 300 but fewer than 500 insurable workers are employed and the consent of the majority of the workers has been obtained. Several employers, each employing less than 300 insurable workers, may combine to form a society the membership of which must not be less than 300, and in that case the combined employers may impose health insurance on the whole body of workers provided that the consent of the majority of the workers has been obtained, and with the permission of the Minister in respect of each undertaking. When 500 or more workers are employed the formation of a society is obligatory, but Insurance under the direct control of the Government is more important. It is effected through the Health Insurance offices established on a territorial basis, each of which controls the insurance of persons falling within its particular area. The class of persons insured under this scheme is mainly composed of persons who belong to under-

4 Vide *Principles of Economics*, Vol. II, p. 357.

takings too small to fulfil the requirements of the health insurance society. In India there is a clear absence of sickness insurance in either of these forms.

In this connection it should be noted that the German system of sickness and health insurance which is compulsory and therefore universal has recorded an admirable success. It provides relief with certainty to those who need it most. Contributions are payable by employers, whose obligation to pay is fixed by the act of employment; but two-thirds of this amount they can deduct from the wages of the workers. The workman during his illness gets one-half of his usual wages and in addition free medical treatment. The administration of the German system has been highly efficient and has secured for every worker sufficient provision in case of illness. As Prof. Taussig says, hardly any other country possesses the staff of trained public servants needed for planning and administering so vast a machinery for social reform; and the Germans are justly proud of what they have here achieved.

In respect of maternity benefits, Indian legislation lags far behind that of other industrially advanced countries. The Bombay Maternity Benefit Act exempts a woman from employment three weeks prior to her confinement and four weeks after confinement. A benefit of eight annas per day is given on a certified extract of birth register. The Act applies only to the principal industrial cities in the Bombay Presidency. In Japan, on the contrary, the Act is more comprehensive in its scope. It prescribes a period of four weeks' suspension of work before confinement and an obligatory suspension of six weeks after confinement. By the grant of maternity benefit amounting to 60 per cent of the daily wages of the women during these periods of suspension of work, the Health Insurance Act has offered ample facilities to the workers. In order to prevent a woman from taking up insurance for a short time with the sole object of obtaining benefit, the Act requires that in order to receive the benefit she must have been insured for at least 180 days before her confinement. Apart from this maternity benefit which varies in amount in proportion to the wages, the insurance scheme provides for a further benefit of a lump sum of 20 yen as "confinement benefit." The object of this is to defray the expenses actually incurred on account of the confinement. As a rule the maternity and confinement benefits are paid in cash, but if necessary the woman may be treated at a hospital or by a doctor or midwife. In such cases, the insurance institution is entitled to reduce the amount of the cash maternity or confinement benefit. The confine-

ment benefit is granted even after the woman has ceased to be insured, provided that the confinement takes place within 180 days after she has ceased to be insured.[5]

Compulsory public unemployment insurance is another important branch of insurance which has attracted considerable attention of the modern state. More progressive countries have accepted it as an essential adjunct of industrialism. The unemployment insurance aims to provide direct relief for the unemployed, and indirectly it offers the most promising methods for the stimulation of further production and greater stabilisation of both industry and society at large. Its reserves are built up in a systematic and well-defined manner in good times. Further, unemployment insurance plan utilises the two chief advantages of social insurance: (1) the distribution of the risk, and (2) the spreading of the burden. By pooling the entire insurance contributions for the whole state, the risk is distributed among the widest possible number. By placing the cost of insurance upon the employers, employees, and the Government, it is possible to distribute the burden without hardship upon all elements of society, especially upon those who can best afford to bear it. Through the distribution of accumulated reserves in times of depression, considerable purchasing power is provided to cushion the depression and to prevent it from falling below a certain level.

In India there is no legislative provision for unemployment insurance. But the nation is increasingly becoming conscious that the establishment of the security for the unemployed cannot be postponed. Unemployment has become the pressing problem of the day. To postpone this problem is to postpone the depression. Suggestions that we should let unemployment insurance wait until conditions improve are due to a misunderstanding of the aims of unemployment insurance. Its object is not to stabilise industry or to abolish unemployment, but to guarantee security and to provide for increased purchasing power. Whatever portion of the cost the workers and industry cannot meet through their own contributions at this time must be supplied through governmental subsidies derived from taxes. A system of unemployment insurance along the lines of the British plan offers the best possible method for increasing the purchasing power of the masses of unemployed.

Old age dependency is a modern industrial and social problem, inherent in the modern industrial system, just as are industrial accidents and technological unemployment; it is not

5 *Industrial Labour in Japan*, pp. 272-273.

due, as so often is charged, to shiftlessness or lack of thrift but rather to low wages, illness, unemployment, and the very wearing out of the workers in modern industry. There is nothing more particular than the position of the workman, skilled or unskilled, who has passed the age of efficiency, has no resources, and is a burden often borne grudgingly, on a household with slender resources. That there is a moral obligation upon the state to support the aged who are unable to support themselves is no longer an open question. It has received statutory recognition in most of the leading industrial countries in forms suitable to their social and economic conditions. It cannot be gainsaid that the Government of India should make a move in this direction and make legislative provision in a form suitable to the economic and social conditions of the country.

This in short is the legislative provision for social insurance in this country. From the details given above it will be evident that India lags far behind in this respect, and that there is ample scope for more progressive legislation so as to give the industrial worker a more adequate protection against the hazards of modern industrial life similar to that which his confrere in other countries enjoy. In India the necessity for the growth of a permanent class of healthy and efficient industrial workers for her rapidly rising industries and commerce has been repeatedly stressed, and an adequate provision for social insurance is an essential pre-requisite for any marked progress in this direction.

BILATERALISM AND INDIAN TRADE AND BILATERAL TREATIES

BY

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I. Bilateralism and Indian Trade.

Next to the depression and recovery, bilateralism has been the most potent influence recently operating on India's export trade.

An analysis of the broad currents of Indian trade would furnish an instructive method of approach to a study of the incidence of bilateralism on it.

The largely triangular character of India's trade in the past was strikingly illustrated by the fact that until 1931-32 her imports from the U. K. greatly exceeded her exports to that country. On the other hand, India had a favourable balance of trade with most other countries. To the U. K., however, she had to make large annual payments on account of interest on her overseas debt, profits and commissions of industrial, commercial and financial concerns, salaries, allowances and pensions etc.; but 'the export surplus required for these payments was not obtained in trade with that country, but with other consumers of Indian products in all continents.'[1]

The following table shows the position of India's balance of trade with important political and geographical areas before, during and after the crisis:

[1] *Review of World Trade, 1935*, p. 63.

India's balance of trade.

	1929-30 Imports.	Exports.	Balance.	1931-32 Imports.	Exports.	Balance.	1932-33 Imports.	Exports.	Balance.
U. K.	103	69	-34	45	45	...	49	38	-11
Other British countries ...	21	45	24	12	26	14	10	24	14
Europe	49	84	35	28	37	9	29	32	3
U. S. A.	18	37	19	13	14	1	11	10	-1
Japan	24	33	9	13	14	1	20	14	-6
Other foreign countries ...	26	50	24	15	25	10	13	18	5
Total ...	241	318	77	126	161	35	132	136	4
	1933-34			1934-35			1935-36		
U. K.	48	48	...	54	49	-5	52	52	...
Other British countries ...	9	22	13	11	22	11	13	24	11
Europe	25	35	10	25	30	5	27	35	8
U. S. A.	7	14	7	8	13	5	9	17	8
Japan	16	14	-2	21	25	4	22	22	...
Other foreign counties ...	10	17	7	13	16	3	11	14	3
Total ...	115	150	35	132	155	23	134	164	30
	1936-37								
U. K.	48	61	13						
Other British countries ...	14	26	12						
Europe[2]	24	34	10						
U. S. A.	8	18	10						
Japan	21	30	9						
Other foreign countries ...	10	19	9						
Total[3] ...	125	196	71						

(*Reviews of the Trade of India* 1931-32 to 1935-36, *Monthly Trade Returns*, March, 1937)

2 Inclusive of 8 crores of exports total "for orders" cargo, final distribution of which is not yet available.

3 Includes over 90 per cent of European trade.

With remarkable swiftness in two years from 1929-30 to 1931-32 India's heavy negative balance of trade with the U. K. disappeared and turned into a more or less even balance. The result was brought about by a contraction of imports from that country by as much as 58 crores against a decline in exports to it of 24 crores. The negative balance reappeared in 1932-33, and to a smaller extent in 1934-35, but it was repressed each time, and was followed in 1933-34 and 1935-36 by an even balance. In 1936-37, the unprecedented phenomenon has been witnessed of an export surplus of Rs. 13 crores in India's trade with the U. K.

The improvement in the position of India's balance with the U. K. however means that the decline of the balance of trade with other countries was greater than the decline of the total balance of trade by the extent of such improvement.

Thus the greatest part of India's export surplus used to be derived from her trade with Europe. It was 35 crores in 1929-30, fell to a bare 3 crores in 1932-33 as a result of a much greater decline of exports than of imports from it. And, in spite of the considerable revival of trade and trade balances with other countries, the export surplus with Europe was only somewhat over 10 crores in 1936-37. This almost permanent deterioration of the balance of trade with Europe[4] stands in marked contract to the improvement with the U. K., the latter in fact appears to be the reflex and counterpart of the former.

A comparison of figures for 1929-30 with the tentative figures available for 1936-37, of export and import trade with the U. K. and Europe is interesting:

	U. K.			Europe.		
	Imports.	Exports.	Balance	Imports.	Exports.	Balance
1929—30	103	69	−34	49	84	+35
1936—37	48	61	+13	24	34	+10
Difference in 1936—37 over 1929—30	−55	−8	+47	−25	−50	−25

4 The balance of trade with 'Other foreign countries' was 24 crores in 1929-30, declined to 5 crores in 1932-33, and still further to 3 crores in 1934-35 and 1935-36. In 1936-37 it has shown a small revival to over 9 crores. The conditions in regard to India's balance of trade with these countries were thus similar to those in the case of Europe. Our remarks about European countries may be applicable in part, though only in part, to these other countries as well.

The great reduction of India's favourable balance with Europe has been more than compensated by a reverse change of a greater magnitude in the balance with the U. K. This is the most striking illustration of the effect of bilateralism in visible as well as invisible items on India's trade: for the first time in the modern history of Indo-British trade relations the net invisible imports from the U. K. were directly paid for to an important extent by net visible exports to the same country.

Triangular Trade, Balance of Trade and Bilateral Trade.

This change is largely responsible for the important change in the distribution of the total Indian trade between triangular trade (in the narrow sense) and balance of trade (which together constitute triangular trade in the broad sense) and bilateral trade. Triangular trade (in the narrow sense in which it is meant to be understood below) is the merchandise trade in one direction which is settled by merchandise trade not in the reverse direction but in *another* direction; bilateral trade is reciprocally balanced merchandise trade; and the balance of trade is the excess of merchandise exports over imports or *vice versa* which is settled not by commodity trade but by invisibles. For illustrating these broad divisions of total trade, the Indian trade figures for 1935-36 may be taken. The total trade of India in that year was valued at Rs. 298·7 crores, Rs. 134·4 crores of imports, Rs. 164·3 crores of exports. Of this 90 per cent or Rs. 272·6 crores of trade made of Rs. 124·4 crores of imports and Rs. 148·2 crores of exports is analysed in the *Review of the Trade of India* according to countries of origin and destination of imports and exports. The excess of exports over imports of this analysed volume of trade or the balance of trade was Rs. 23·8 crores. The sum of the export balances with all countries with which export balances obtained was 34·9 crores, the sum of import balances with all the remaining countries was 11·2 crores. The total trade of Rs. 272·6 crores was thus divided into (1) triangular trade amounting to 22·4 crores (the import balances of 11·2 crores plus an equal amount of export balances against which they could be debited); (2) balance of trade (or trade settled by recourse to invisible transactions), 23·8 crores; and (3) bilateral trade reciprocally balanced amounting to 226·4 crores, the sum of total exports less export balances and total imports less import balances. The following table brings out important changes in the distribution of Indian trade on the above scheme, and therefore in the nature of trade relations with important trading countries:

Percentage Distribution of Total Indian Trade between Triangular Trade, Balance of Trade, and Bilateral Trade.[5]

	Triangular trade (in narrow sense).	Balance of Trade.	Triangular Trade (in broad sense).	Bilateral Trade.
1929—30	22	9	31	69
1932—33	22	...	22	78
1934—35	12	7	19	81
1935—36	8	9	17	83

It will be seen that from 1929-30 to 1932-33 bilateral trade increased from 69 to 78 per cent, all at the expense of the balance of trade which fell from 9 to zero per cent; triangular trade represented the same proportion of total trade in 1929-30 as in 1932-33. Since 1932-33 the proportions both of bilateral trade and of the balance of trade have been increasing, necessarily at the cost of triangular trade (in narrow sense) which has shrunk considerably from 22 to 8 per cent only. Such far-reaching changes in the direction and courses of Indian trade accompanied similar well-known changes in the sphere of international trade as a whole.

II. Bilateralism and Indo-British Trade.

It may be noted that the enormous shrinkage in India's export surplus with Europe, and the change from a heavy import balance to a fairly large export balance with the U. K. seem to reflect what appears to be a permanent shift in the underlying conditions that govern the courses of trade. "As triangular trade is squeezed out the prospects of creditor countries collecting the debt service due to their nationals depend more and more upon their readiness to conclude clearing or payments agreements with their debtors. Thus the whole range of payments across national frontiers—the invisible as well as the visible items—tend to come under regulation"[6] and to flow along bilateral channels. This result which is coming about in India's trade with the U. K. coincides with the growing insistence of a demand by economic and commercial opinion in this country for the inclusion of invisible transactions as well as merchandise flows in a

5 This distribution is based on an analysis of exports and imports by countries in the annual *Review of the Trade of India*, since 1932-33, covering generally about 90 per cent of the total trade.

6 *World Economic Survey*, 1935-36, p. 213.

consideration of reciprocal advantages under a trade agreement with the U. K.

It is urged that the U. K. should normally have an import surplus in merchandise trade with India as she is the largest creditor of the latter, and the latter is also her most considerable debtor. For a long time the U. K. was the only important trading country with which India had an unfavourable balance of trade. On the other hand, too, India was the only important country with which the U. K. had a favourable balance. India had export surpluses with almost all countries except the U. K. and the U. K. had import balances with almost all countries excepting India. The trade relations between India and the U. K. were typical of the prevailing system of multiangular trade, but that system and those trade relations have been changed, and are increasingly replaced by bilateralism and bilateral trade. Ottawa itself has been a big step in the direction. It is but proper therefore that a bilateral treaty between the U. K. and India should aim towards the development of a merchandise export surplus in favour of India comparable to the magnitude of her invisible imports from the U. K.

Indeed, bilateralism applied to the sum total of economic transactions between the U. K. and India might impart a distinct fillip to India's export trade. That is precisely because India imports much more of tangible and intangible goods and services from the U. K. than she exports to the latter.

III. Bilateral Trade Agreements with Foreign Countries.

Besides, popular, commercial and economic opinion in the country appears strongly to favour the conclusion of bilateral trade agreements with important trading countries other than the U. K. also. The severity of the decline in India's export trade, the practical disappearance and slow reappearance of her favourable balance of trade particularly in the trade with Europe, the general tendency to planned trade on the basis of trade treaties of varying degrees of thoroughness, and the example of the U. K. herself in concluding such treaties, have all created a strong opinion in the country in favour of a comprehensive policy of trade development through bilateral trade treaties with the principal trading countries.

It is recognised that the most favourable conditions for an expansion of world trade are provided by the unrestricted operation of the most favoured nation principle and that bilateral treaties do not promise more than a limited expansion of trade. But it is contended that *no* single country much less India, can

afford to remain out of line with the general developments in the world as a whole.

The Demand Examined.

It must be observed at the outset that the demand for trade treaties, although it has been often voiced and insistently pressed, has not assumed the form of any very definite or concrete proposal. It remains more of a vague aspiration, the expression perhaps of a strong feeling that the situation calls for a more courageous and positive policy of trade expansion than has been pursued so far. There has been surprisingly little constructive thinking as to the ways and means of bringing about the much desired result. The idea of reciprocity[7] in trade treaties is emphasized, but otherwise the proposal remains somewhat bare of content and blurred in outline.

Alternatives in trade treaty programme.

Should India choose to enter upon a course of bilateral trade treaties, the various alternatives for her in practice would be:—(1) Exclusive reciprocal agreements based on (*i*) compensation or barter deals between governments and/or state regulation of compensation business between private parties; (*ii*) clearing arrangements with countries practising exchange control; (*iii*) regulation of trade by quotas; (*iv*) tariff adjustments; or a combination of one or more of the above elements. (2) Exclusive reciprocal *tariff* agreements. (3) Reciprocal *tariff* agreements with conditional most favoured nation treatment, *i.e.*, reciprocal tariff agreements, (involving tariff adjustments at least on the side of India), the benefits of which may be conditionally extended to other countries which grant equivalent concessions and thus qualify for the receipt of the benefits given to an original co-contractant. (4) Reciprocal agreements, the benefits of which may be unconditionally extended to all countries entitled to most favoured nation treatment.

All the methods included under (1) are incompatible with the principle of equality of treatment and are essentially discriminatory in greater or less degree.

A general feature of recent treaties; bilateral tendency.

Almost all reciprocal bilateral agreements concluded in recent years except those which fall in the last class, however

7 Vakil and Munshi, *Industrial Policy of India*, 1934, p. 69; *Indian Journal of Economics*, April, 1937, article on "Tariff Policy of India" by C. N. Vakil.

diverse in form and in the details of their structure, have one general tendency: they have tended to equalise the flows of commodities or total financial claims between individual countries. This tendency is particularly marked in the case of clearing agreements and others involving extreme forms of restriction.

The Importance of the State of the Trade Balance.

Now, countries with an unfavourable balance of commodity trade may use reciprocal bilateral treaties as an instrument for the enlargement of export trade, or for its maintenance during a period of declining trade and increasing restrictions. Thus for instance the U. K. has used its strong bargaining position in this respect to the advantage of its export trade and its balance of trade[8] in the negotiation of reciprocal treaties with many countries: "Where a foreign country's trade balance with Great Britain is favourable the British Government enjoys a bargaining advantage. In these circumstances the agreements are directed towards securing greater equality of trade, the country increasing its importation of British goods or being faced with a reduction of its exports to Great Britain. The principle applied is, "Buy from those who buy from you," which represents a departure from the more natural triangular trade."[9] Countries like France and Italy too having import balances may use such reciprocal treaties to their advantage. Even so, a *strictly bilateral* treaty between India and the U. K. might help the export trade of the former.

In general, and on the whole, however, India is in a different position from those countries: not only has she an excess of exports over imports as a whole, but she has an export surplus in her trade with almost all countries with which she trades.[10] This position of the balance of trade has an important bearing on India's foreign trade policy. It renders unsuitable from her point of view the short-term bilateral agreements based on compensatory special advantages, and aiming at a mutual balanc-

8 Not necessarily to the advantage of the country, however, for the only way in which a large creditor country can receive payment for its 'invisible' exports is by an excess of imports over exports. A restriction of imports by reducing the profitability of enterprise abroad and therefore the purchasing power of the agricultural communities overseas may lessen the yield of her foreign investments and her receipts in other ways.

9 Richardson, *British Economic Foreign Policy*, pp. 101-102.

10 Until 1935-36, the U. K. was the outstanding exception.

ing of exports and imports between individual countries.[11] We must avoid the common error of thinking that what is good for England is necessarily good for India or what may be good for India in her trade relations with England is also good for her in her trade relations with other countries.

Reciprocity Treaties.

A brief reference may be made here to some fundamental features of reciprocity treaties (class 2 above) as distinguished from treaties based on the unconditional most favoured nation clause (class 4 above). Under a system of treaties based on the unconditional most favoured nation class, the benefits mutually exchanged are automatically extended to all countries entitled to most favoured nation treatment. On the other hand, a reciprocity agreement in the first place postulates the reciprocal exchange of defined and equivalent concessions, and, secondly, provides against extending the benefits to third parties either absolutely, or without requiring identical or equivalent considerations from them.

Equivalence.

The crucial point then is how to measure and how to maintain equivalence. But equivalence is an entirely relative concept, with no 'yardstick' for its measurement in absolute terms. Every country has its own standard of value or judging the advantage or otherwise of changes in the export and import trades. For instance, an industrial nation's demand for imports (of raw materials which it cannot produce) may be more intensive than another industrial *cum* agricultural country's demand for imports (of manufactured goods which compete with the products of its home industry). A concession on imports may therefore be regarded by the latter as involving greater real sacrifice than an equal concession by the former.

11 No doubt in the reciprocal balancing of advantages other considerations have to be taken into account. For instance the exports of India consist of primary products while her imports are largely manufactured goods. This fact may tend to make the demand for her exports less elastic than her own demand for imports. However, while the demand of foreign industrial countries for imported raw materials as a whole may be less elastic than India's own demand for manufactured imports, the demand of particular foreign countries for raw materials from a particular source like India may be about as elastic.

Complementary and identical concessions.

Such differences of valuation may be composed and serious difficulty averted so long as the treaties concluded by a country involve the grant of complementary and not identical concessions. When, however, two countries press for obtaining an identical concession and make reciprocal offers to secure it the task of correctly evaluating the various alternatives becomes one of great complexity. Suppose the United States and Canada ask for special terms for the entry of their motor cars into India and the U. K. at the same time insists on a margin of preference, and all of them offer special concessions on the import of Indian raw materials or semi-manufactures. It may be found after a good deal of controversy and bickering that the best or least unsatisfactory solution is to accord equal treatment to imports from all sources. At any rate, it may be so difficult to assess the value of the various concessions offered in return, and to consider particular transactions apart from the sum total of trade transactions between two countries that differential treatment could not be based on easily understood or generally recognisable grounds.

Indeed, there is often nothing more than pure conjecture on which calculations in advance of the real value of trade concessions can be based. When economic considerations dictate a doubtful course, non-economic motives are very likely to supervene and force the issue to a conclusion, which appeases the political sentiment of some, and excites the suspicion and antipathy of others.

Even if some sort of agreements were arrived at, and approximate equivalence attained there is no end of difficulties, for the equivalence is relative to conditions obtaining at a particular time and could be maintained without change only in a static state. In a dynamic world the point of equilibrium of economic forces is constantly shifting and a disturbance of equivalence which already rests on a delicate adjustment of considerations becomes inevitable.

Exclusive 'reciprocity' treaties.

Under a system of commercial treaties based on exclusive reciprocity, both the difficulties of adjustment and the dangers of friction are multiplied. It may happen that in many important lines of imports, more than one country is interested. Now, if any one country is placed in a specially favourable position *vis-à-vis* its rivals, and no encroachment on that position is possible even by the offer of similar concessions by other countries, an

inequality of trading conditions results which may appear to some countries to be a cause of just grievance. Long, complicated and frequent negotiations are therefore necessary, which do not promote friendly relations between states, and are not often free from exacerbation and embitterment of feelings. The nice apportionment of benefits to individual states and the careful maintenance of the scheme of distribution necessarily involve greater delay than a system of unconditional most favoured nation treaties.

Reciprocity not unoften leads to reprisals and retaliation, exclusiveness on this side to exclusiveness on the other, discrimination to discrimination: retaliatory wars are very unlikely to improve the prospects of India's export trade, for India, exporting more to most countries than she imports from them, is not in a strong position to hit back.

Trade bargaining and Industrial development.

Another point of some importance which does not appear to have been sufficiently considered by those who plead for a policy of reciprocal bilateral treaties is the relation of such policy to the insistently acclaimed goal of full industrial development at home. A policy of planning assured outlets for export trade involve concessions, and injection of material foreign competition into certain sections of the domestic market. In any policy of bargaining for trade advantages therefore a balance has to be struck between the interests of the home producer, and of the exporter.

If the progress of industrial development at home is regarded as of primary importance, autonomous control over the tariff would also be considered vital. But a strict policy of reciprocal bargaining may involve an important diminution of the power to regulate the tariff in the interests of the home industry. One of the main counts of criticism (rightly) advanced against the Ottawa Trade Agreement has been that it has tied our hands in respect of far too large a part of our imports, and greatly restricted our power of bargaining for trade advantages with other important customers. It is not fully realised, however, that when we have actually bargained for trade advantages with all our important customers, we shall have consolidated our tariff in far too large a measure to have much discretion left to adjust it with reference to the needs of domestic industry. Those who continue to press the claims of all-round industrial development at home, simultaneously with systematic bargaining for commercial advantages abroad fail to perceive the innate conflict

between the two policies, and the necessity for intelligent choice or compromise. There is often a vital connection between the form of the tariff and the form of the most favoured nation clause to which a country may own allegiance. If a country prefers the autonomous tariff freely adjustable with reference to the needs of domestic industry, to the conventional tariff, fixed in large part by commercial treaties with foreign countries and not alterable at will, adherence to the unconditional clause follows almost as a corollary.[12]

Conclusion: bilateral reciprocity unsuitable for India.

The conclusion to which the above discussion points is that a system of bilateral trade treaties based on direct barter deals between governments or private parties or strict control of the means of payment, or of the quantities of commodities imported from different countries, is not likely to serve the interest of the extension and development of the export trade of India. Compensation and clearing agreements and quotas are essentially restrictive devices, not fit instruments for the enlargement of trade. They are not the proper apparatus for carrying through a systematic policy of opening up closed avenues and creating fresh outlets for India's exports. A system of reciprocity treaties involving a balancing of concessions on either side, symptomatic of the trend to bilateralism, is fundamentally opposed to her interest. It may be true, as has been argued sometimes, that India is helpless in such matters and is compelled to defend herself against the adverse impact of forces originating elsewhere, but it is not correct to draw the corollary that what is undesirable in itself becomes a *necessary* evil in the circumstances. The above analysis shows that the remedy proposed may be worse than the disease: exclusive reciprocity, or reciprocity accompanied by conditional most favoured nation clause is not a good means of defence against the effects of bilateralism; on the other hand, it is very likely to accentuate the incidence of that tendency on India's trade. A grant of definite tariff concessions, moreover, over the whole range or a large part of the imports under a policy of reciprocal trade bargaining may compromise the freedom of this country to regulate the tariff in accordance with the requirements of protection of domestic industries.

12 "The unconditional form represents for the autonomous state a method of conserving its freedom. At the same time, if the clause is reciprocally conditional, the autonomous state must part with its freedom, for it can only buy concessions at the expense of its freedom" (Gregory, *Tariffs: A Study in Method*, p. 459).

At present, moreover, all the indices of the economic barometer point to considerable improvement in the economic atmosphere. The demand for agricultural products has experienced a marked revival. The prices of foodstuffs and raw materials have been consistently on the upward trend for over three years. Though recently the rise has been fitful and often too quick, not uninfluenced by political factors, probably the greater part of it has a sound basis in the changed underlying relations of demand and supply, and has been caused by the necessity to replenish depleted stocks and meet the rising industrial demand all round. Indian export trade has responded to the stimulus in a remarkable manner, thus giving proof of its great recuperative power.[13] The balance of trade, too, has increased to over seventy crores during the last financial year, so that India should now be able to meet her normal external obligations by means of the surplus of merchandise exports. These circumstances are not so desperate as to justify a policy of special bargaining for exclusive trade privileges. Such a policy, as has been argued above, could never really yield very satisfactory results for India. There is much less reason for it now than may have existed at one time or other during the depth of the depression.

A general lowering of the barriers to trade, the most wide-spread rule of the unconditional most favoured nation clause, (such as obtained throughout the period of increasing international trade during the latter half of the nineteenth and the beginning of the twentieth centuries), the restoration of international trade, and an all-round increase in the demand for and the prices of the products of agriculture,—these are the most favourable conditions for the promotion of Indian trade. It may be hoped that these conditions will be more and more fulfilled, as they doubtless are in some measure. Nothing should be done by India at this juncture to reverse, hold up, or retard a highly beneficent process.

IV. Bilateral Trade Agreement with the U. K.

It has been observed above that a strictly bilateral trade treaty with the U. K. may of itself operate to the advantage of India's export trade. But such a treaty does not appear to be practicable as things are. Moreover, were it possible it would effect a wide breach in the general lines of our trade policy based on the principle of equality, which is dictated by the nature of our trade

13 Indian exports increased from 132 crores in 1935-36 to 164 crores in 1936-37.

relations with foreign countries. So long as the present and prospective importance of these trade relations is greater than of those with the U. K. alone, the general lines of trade policy should be determined by them.

The U. K. indeed may be expected to take the lead in bringing about a return to free trade. In view of the important rôle belonging to the U. K. for the liberation of world trade, the general arguments against the conclusion of restrictive trade agreements by India apply with greater force to the case of that country. Again, logical consistency as much as clear necessity requires that the lines of India's foreign trade policy should at least be broadly similar with regard to the U. K. and other countries. In this connection it is difficult to reconcile the view expressed by the Director of the Information Bureau in his series of Press Notes on "India's Foreign Trade Policy" that there is no case at all for *any* measure of discriminative regulation of trade relations with any foreign country, and the view expressed in a similar series of notes on the "Ottawa Agreement and India" that *every* single measure of special regulation of trade with the U. K. is completely justified.

Otherwise too there are some sound economic reasons against a wholesale exchange of preferences between the U. K. and India, and a consequent wholesale policy of discrimination against foreign countries. The export surplus in merchandise trade that is indispensable for meeting India's normal obligations to the U. K. has been secured in the past in her trade with countries other than the U. K. Hence the importance of maintaining and fostering trade relations with these other countries cannot be overemphasized.

Again, a general exchange of preferences over the whole range of reciprocal trade between the U. K. and India can be of much less value to the latter than to the former. For, while the range of foreign imports into India which compete with and are substitutable by imports from the U. K. is very large, the amount of foreign imports into the U. K. which can be replaced by corresponding imports from India is much smaller. The reason lies largely in the relative ease with which manufacturing production can be expanded to take advantage of better opportunities for sale in particular markets, against the comparative inelasticity of supply of agricultural products: agricultural production is governed much more by the exigencies of natural conditions and is less subject to human control than manufacturing production. The demand for the products of agriculture, again, may not be as elastic as the demand for industrial goods in a single market.

India may, therefore, have permanently to depend upon a wide distribution of her export products among many and scattered markets.

How much in fact of the case for a trade agreement with the U. K. remains at present?

Four important commodities which enjoyed preference under the Ottawa agreement have dropped out of the possible scope of any fresh agreement by the separation of Burma, *viz*., rice, teak-wood, pig lead, and paraffin wax. Again, tea formed nearly half of the total exports of all Indian commodities enjoying preference in the U. K. But tea has been subject to regulation all these years, and any possible benefit of the preference has been obscured, and indeed rendered ineffective, by the much greater advantage of the delimitation of foreign competition under the international scheme. If India should lose some ground to Ceylon in the U. K. in case of her exclusion from that market, she might make that up by an almost corresponding gain in other markets, since the total export quotas are fixed with reference to the estimates of total world consumption, and apportioned among the three principal producing countries according to their 'standard' exports. In any case, the operation of the international regulation scheme minimises the possible danger of a preferential scheme which excludes India.

On the whole on the export side the positive value of the preferences has been limited to the group of commodities made up of linseed, (rice), (paraffin wax), woollen carpets and rugs, oilcakes, brans and pollards: the increase in exports of these to the U. K. accounts for the entire increase in preferred exports to that country. In respect of these exports, too, the much greater importance of foreign markets limits the possible value of preference in the U. K., while the absence or extreme weakness of competition from within the Empire minimises the liability to loss in the case of exclusion from the preference.

Again in the case of Jute manufactures, tanned hides and skins, castor seed, raw goat-skins, the total capacity of the U. K. market is little in excess of imports from India: the scope for replacement of foreign by Indian imports is therefore small. On the other hand, moreover, Indian exports are sent mostly to countries other than the U. K. (except in the case of tanned hides and skins). Preference in the U. K. cannot safeguard the more important foreign markets and may even adversely affect India's position in the latter, by causing severer competition from foreign goods excluded from the U. K. Moreover, since there is little

or no competition from the Empire countries, there is little to fear from the abolition of the preference.

In the case of tobacco, coffee, vegetable oils, spices, manures and bones and pulses and beans, the total U. K. demand is enormous while India's contribution is comparatively negligible: a more or less rigid limit is set to expansion of exports by the smallness of the total Indian supply relatively to the U. K. demand, though the non-inclusion of India in any preferences which may be granted to other Empire countries is likely to result in some small loss to her trade.

Of important commodities that receive preference at present there remains to be considered the case of groundnuts. Now the British preference on Empire groundnuts reacted adversely (though indirectly) on the position of Indian and British West African exports to France. Again, in the last year the continental demand has shown an appreciable revival, the French duties having been substantially reduced. The loss of the British preference, which brought small net expansion of exports, will hardly operate as check to an expanding trade.

It would appear indeed that at a time of falling prices increasing restrictions, shrinking markets, and declining trade, there was something to be said for a policy of safeguarding the small remnants of trade by special bargaining and exclusive privileges: the Ottawa Trade Agreement served a useful purpose during a difficult time. It is no disparagement of Ottawa to say that its essential function was largely that of a defensive measure. Defence is not less necessary than development. And when development is not possible defence is all-important. But a policy of discriminative special advantages has largely outlived its usefulness. At a time of rising prices, expanding markets, and increasing trade there is unanswerable justification for restoring the universal equality of treatment in commerce to its proper place as the paramount principle of international trade relations. Our trade with the U. K. should be no exception to the general rule.

A compromise between the present system of wholesale preferences, and their complete abolition may however be considered: a system of judiciously limited, discriminate and selective preferences. India might obtain preferences only on such goods as linseed, woollen carpets and rugs, groundnuts, tobacco, vegetable oils, coffee, and pulses in respect of which a preference is likely to be of some definite advantage, and in return might grant preferences on goods of which substantial proportions, say above 65 per cent, are imported from the U. K.

Such comparatively painless schemes of preference have been contemplated,[14] and might indeed be put forward as almost an ideal solution from India's point of view—a solution which saves the face of Imperial preference, at the same time secures much of the benefit it has to offer to India, but involves no proportionate expense or comparable sacrifice. Such schemes are however unlikely to commend themselves to the other party in question, and evade the real difficulty: exclusive and discriminatory agreements are not suitable means for bringing about a general as apart from a special enlargement of trade.

Conclusion.

One who is unmoved by political predilection or the weight of party politics may well ask, Would it be worth while to retain a preferential scheme that only contains an exchange of minor benefits and minor burdens on either side, and stake the major advantage that is likely to result from every big step in the direction of equality of treatment in commerce? For the present, India would be well advised to throw her full weight in favour of the latter principle, even at some hazard to her trade. She might assume the risk, if any is involved, of standing apart from a restrictive Empire system and stand out boldly for international economic concord. Let her declare her aim and intentions; with the best of intentions towards the fellow members of the Commonwealth, let her pursue the better aim, and invite others to follow. If the U. K. is induced by her example to soften the rigour of a restrictive Empire system, India's refusal to be a party to such system will have justified itself. If the United Kingdom shuts her out and at the same time maintains the full rigidity of her restrictive system; if, moreover, the countries of the world choose the narrower path of exclusive reciprocity, if things take a definite turn away from the objective of equality and freedom, there will be time then to reconsider our position in the light of experience and of a more definite trend of events. At a time such as the present, when the countries of the world have reached a parting of ways in the matter of commercial policy, let India do her best to help in the choice of the better and wiser course. When the choice is more decisively made, let her adapt her policy accordingly, if readaptation is still called for.

India in her own best interests should play her part in the game of international cooperation, and share in a joint endeavour

14 Cf. D. Ghosh : Revision of Ottawa, 1936; N. R. Sarkar : Indo-British Trade Relations, Ottawa and After, 1937.

'to clear out the channels of trade.' India has, however, a population approximately one-fifth of the whole world: she can best contribute to the wealth of the world by full utilization of the idle energies, the potential skill, latent enterprise and dormant initiative of her people, operating with their hoarded reservoirs of capital upon her rich and varied natural resources; and by their power acquired in consequence to become effective purchasers of other nations' goods. There is no better way in which she can—consistently with her obligations to over three hundred and fifty million human beings—seek to serve the claims of a higher and broader loyalty.

The right policy for India at the present moment is to push on the pace of her own internal economic development, and have as few international commitments in the way of restrictive treaties as possible.

TERMINATION OF COMPANY RAILWAY CONTRACTS

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Note.—Of all the company railways subsidized by the Government, only the B. & N. W. and the R. & K. are important. They have been chosen as typical instances for the purposes of this paper, specially because the question of their purchase is to come before the Government, once more in 1942. They comprise of about 1,825 miles (excluding State-owned sections worked by them) as against 531 miles, shared by the remaining six railways—The Bengal Doars (extensions), Mirpur-Khas Kadro, Barsi light, Dehri-Rohtas, Shahdara-Saharanpur, and Matheran light.

I

INTRODUCTORY.

Revival of Company Railways.

The year 1881 stands out as a landmark in the history of Railways in India, when after 12 years of State-construction and administration it was realized by the Secretary of State, Lord Harrington, that the revival of companies was the crying need of the hour. The policy of State-construction had failed 'to bear fruit to the expectation of the Government of India.' And, the exigencies of the time had 'necessitated the diversion of a substantial amount of capital resources of the state to the construction of military and strategic lines on the North-Western Frontier.'[1] Moreover, between 1874 and 1879 the country was visited by acute and wide-spread famines. The Famine Commission of 1880 had, therefore, strongly urged that 'the policy of railway extensions on borrowed capital should be pursued, so that nothing might stand in the way of very early

1 See Sanyal, *Indian Railways*, page 134. It is also interesting to note that of the total construction of 3,297 miles by the State agency between 1869 and 1881, the Punjab Northern Indus Valley, and Kandhar lines alone which were strategic accounted for 1,008 miles.

return to the former scale of grants for the paramount object.'[2] The Secretary of State being impressed by the needs of the country advised the Government of India to 'encourage the raising of capital through private agency on exclusive security of the success of the undertaking.'[3] In case of this device proving impracticable, he recommended granting of modified guarantees 'so restricted in respect of time and the rate of interest guaranteed, as to give the subscribers a real interest[4] in the efficient and economical administration of the railways.'[5] The Government of India, however, realized the limitations of this policy and, therefore, did not favour an uniform system of Company enterprise. As a consequence of this, four different types of contracts, according to the needs of the areas concerned, were signed. Of these we are here concerned only with the B. N. W. and R. & K. Railway contracts.[6]

Main provisions of the contracts.

The contracts, which were signed by Lieut. General Craven Hildseley Dickens on behalf of the Bengal and North Western Railway, and Mr. Robert Russel Carew on behalf of the Rohilkhand and Kumaun Railway Companies[7] were intended to last for 99 years. Other provisions are given below:—

(1) *Land.*

Land was provided free of cost for the term of the contracts.

(2) *Government Aid.*

No Government guarantee or subsidy was offered to the Bengal and North Western, but the Rohilkhand and Kumaun Railway was guaranteed to the extent of 4 per cent per annum in sterling, on capital up to £20,00,000 expended on the Company's original lines during construction. Thereafter, a subsidy of Rs. 40,000 per annum was granted for a period of ten years from the date of opening.[8]

2 *Famine Commission Report*, page 170.

3 Despatch of the Government of India No. 1, Financial, dated 6th January 1881.

4 The rate of interest was to be guaranteed up to a certain minimum during the days of construction (details given elsewhere).

5 Secretary of State's letter to the Government of India 1881.

6 The other two railways were B. C. R. and S. M. R.

7 B. & N. W. contract signed on 20. 10. 1882, and the R. K. on 28. 9. 81.

8 Memo. of Association, B. & N. W. and R. & K. Art. 8(a).

(3) *Distribution of profits.*

The surplus profit in case of the B. & N. W. R. was (according to the original contract) to be equally divided between the Government and the Company, but this provision was rescinded by the contract of February 28, 1886, which leaves the profits entirely in the hands of the Company. In case of the R. & K. R., however, the profit, after paying off working expenses, is to be divided between the Government and the Company.

Working of State Railways.

In the year 1890, when the railways had already functioned for not less than seven years as a primary and productive means of transportation in the area of lands offered to them, the Government began to feel of their prospects rather adversely, and consequently decided to give over to them the management of two of their most productive concerns, *viz.*, the Tirhoot State and the Lucknow-Bareilly Railways. The former was given to the B. & N. W. and the latter to the R. & K. Railway. This arrangement is now to last till the expiry of the Company railway contracts.

Power of the Government to determine the Contracts.

(1) According to the Contract of 1881 the companies could be purchased in the year 1912 or 1932 on 12 months' notice. But a later Contract signed on December 8, 1932 offered to the Secretary of State two more options to purchase—in 1937, and failing that 1942. If both of these options are forgone by the Government, the Companies are to become the property of the State in 1981, when the Contracts will terminate by efflux of time.

(2) In case of purchase or termination of contracts by the efflux of time all the appurtenances of the companies will become property of the State.

(3) The Secretary of State may, however, determine the Contracts, even before the dates specified above, in case of any breach of the stipulated provisions of the Contracts, which the companies have failed to remedy effectually, within six months of the notice given.

Purchase price.

In case of purchase on any of the dates specified in the Contract of 1932 (originally 1881) the Secretary of State will

have to pay to the companies in respect of all the items mentioned therein (details will follow).

II

The Problem of Purchase.

Thirty years' time of Company management, which expired at the end of 1912, was a fairly extensive period to decide whether the new scheme of constructions had succeeded, and whether the management of the company had been suitable to Indian conditions. But the Government without eliciting the views of experts on the subject, and without consulting public opinion in this matter, decided to let go the first opportunity to purchase (in 1912). The lapse of another twenty years, however, made the feelings grow very high against the management of the company railways, and the Government as well as the public began to realize that the change of proprietorship was the only remedy of the various drawbacks of company-management. In 1932, therefore, when another option to purchase was available, the Government of India did not fail to issue circular letters to the Provincial Governments, in order to elicit through them the opinion of the Provinces. But in fact, the Secretary of State had already decided in his mind not to terminate the contracts. He assumed that the proposition of purchase was, at that time, commercially unsound. And, by giving out his views to the Provinces, in anticipation of their verdict on the subject, the Government of India only prejudiced their (Provinces') independent thinking and compelled them to remain practically neutral, in spite of the pressure of public of grievances.

Views on purchase.

It would here be interesting to note that the subject of purchase in 1932 had given rise to diverse opinions and heated discussions in and outside the legislatures. The Government of India were firm in opposing the purchase; the Provincial Governments remained virtually neutral; while the public was wholeheartedly supporting the proposition.

Government of India on Purchase Price.[9]

The purchase price of the two railways was, in the year 1931, estimated by the Government of India, to be £11,912,000

9 See Government of India Memorandum issued in 1931 on termination of the B. & N. W. and R. & K. Railways Contracts.

(being £10,078, 000 for the B. & N. W. and £1,834, 000 for the R. & K. Railway). According to this, they were required to find a sum of about £701,500 (being interest at 6 per cent on the Capital to be borrowed) for acquiring both the concerns. Against these, the net-earnings (of which the average for the last three years ending in 1929-30 came to £1,020,000) were treated as the net-additional revenue accruing to the State from the acquisition of the two companies. The profit, thus, resulting from purchase was in the neighbourhood of £318,500.

Some assumptions discussed.

In calculating the price payable at the time of purchase the Government had assumed that further losses of revenue were likely to occur on account of

(*a*) the demand for better amenities to passengers and higher salaries to the subordinate staff, which would raise the " ratio of working expenses " by about 10 per cent, and cause a loss of about £220,000 annually,

(*b*) Indian taxes, which were no more going to be recovered from the railways (under state-control) and were estimated to be about £22,000 per annum, and

(*c*) the rate of interest, which was forbiddingly high—about 6 to 6½ per cent.

But a closer examination of facts will reveal that these assumptions were fallible, and based on misconception. The rise of " Working Ratio " should never, on principle, be treated as an element of loss. Such a rise is necessarily followed by an improvement in the conditions of transport, which in their turn help in eliminating road competition on parallel lines and increasing net-earnings in the long run.

As to Indian Taxes, it should not be forgotten that this item had already been included in increased " working expenses," and accounted for, in the newly framed " Ratio of Working." Moreover, the loss of Indian taxes was also recoverable from another item—*i.e.*, 1 per cent contribution towards general revenues, which was going to be an additional source of income in case of state-management.[10]

10 *Ibid.* Amount recoverable from I.P.C. contribution was equal to Indian taxes paid.

In regard to the rate of interest, the views of the Karachi and Cawnpore Chambers of Commerce deserve consideration. They entertain the conclusion that the Government had been over-estimating the rate of interest, and under the circumstances prevailing at that time, money could be easily borrowed at 5 per cent, if not cheaper. (Details given elsewhere.)

Provincial Governments' views.

The Government of Behar and Orissa addressing a letter to the Government of India expressed their views in the following words[11]:—

> "This Government are concerned only to a very small extent with the question of purchase, and in view of the financial position they do not wish to make any special request for the purchase, but would accept the conclusion reached in consideration of larger interests of other Provinces."

The case in favour of purchase was, however, so strong that they could not help reminding the Government of India that there was a 'general public hostility towards the Bengal and North Western Railway.' The main reason for this was the conviction that it was 'being conducted with a single eye to the making of profit.' And, they further summed up the general grievances of the public in the following words:—

> ". . . . that the rolling stock and the permanent way are bad, that the traffic arrangements are bad and unpunctual, and that through insufficiency of trains there is much over-crowding of passengers."

In course of a letter dated January 24, 1931 to the Government of India (about the termination of the B. & N. W. and Kumaun Railway Contracts) the Government of the United Provinces wrote[12]:—

> 'The Governor-in Council is not in a position to form any estimate of the financial gain or loss to the State that is likely to arise from the acquisition of these railways. He is, however, prepared to accept the statement of the Government of India that the gain, if any, will be small. . . . He is, however, also of opinion that the Government of India should make

11 See letter No. 305/X. C.-2/31 dated the 20th July, 1931.

12 See Letter No. r-9576 dated 14th May, 1931.

an attempt to reach an agreement with the companies for the continuation of the present arrangements for a shorter period than fifty years fixed under the existing contracts. In submitting this opinion, the Governor-in-Council has not overlooked the fact that both the companies are unpopular with the public of the areas served by their system in this Province, and that the opinion of the public would probably, be strongly in favour of the termination of the Contracts at the earlier possible date."

Public Views.

Commercial organisations strongly urged the termination of Company Railway Contracts. And, in connection with the B. & N. W. R. the Buyers and Shippers Chamber, Karachi, pointed out that it was the most suitable time for the purchase of the railway, because, 'it had built up a strong reserve, which had increased during the last six years from £180,000 to £315,000, being actually in excess of the ordinary capital' which was £300,000. They further held that the railway had been 'returning to its shareholders round about 19 per cent.' And, on this strength there could not be any difficulty in securing capital at a low rate of interest.

In support of this claim they had also quoted from the *London Times* of 19th February, 1831 the following comment:—

> "On the 31st March last the debt of India of all kinds bearing interest amounted to £848,800,000. Of this £686,200,000 was represented by interest-yielding assets. In other words the amount of obligations not directly represented by productive assets was less than 20 per cent of revenue after crediting the interest accruing from the revenue-earning assets and other receipts of the Government of India was in 1929-30 only £4,800,000. Of this £4,600,000 was furnished by the profits of railways. In other words nearly the whole of the interest charge on Indian national debt was provided directly or indirectly by revenue producing assets."

And, in view of the fact that a sum of £4,800,000 was furnished by the profits of the railways, they assumed that if Indian Government borrowed in the London market even at 6 per cent (for the acquisition of the railways) there would have still

remained twice that amount from revenue-yield to go towards amortisation.

The United Provinces Chamber of Commerce were also strongly in favour of terminating the contracts of the B. & N. W. and R. & K. Railways. They said that the railways had 'for many years compared very unfavourably with other principal railway administrations in the country, particularly those managed by the Government, in the matter of comfort to passengers, and conveniences and facilities to the mercantile community in respect of goods traffic.'

In regard to the rate of interest they held that the Government were not correct in 'assuming that not less than 6 per cent could have to be paid on the money borrowed for the purpose' of purchase. They rather felt that the Government of India had invariably been too generous, if not extravagant in the matter of terms offered for the sterling loans raised by them in London. And, argued that 'shortly after the last loan floated by the Government in London at a high rate, South Africa borrowed £5 million in the same market at a rate lower than 5 per cent,' while the credit of the South African Government was 'not in any way higher than that of the Government of India.' Assuming, however, that for any reasons it was not possible to raise money at better terms, they held that 'the Government could raise necessary funds from the United States of America, where money was easy and plentiful, and who had lent on reasonable terms to other countries, some of which were no bigger than mere principalities, and the credit of which could not in any sense be compared to that of India.'

The public of the United Provinces and Behar and Orissa were also loud in their cry for termination of the company railway contracts. Some of their grievances which had been placed before the Provincial Governments, and the local and central legislatures, from time to time are given below[13]:—

(1) The administrations have never run mail trains, and the number of express trains is too small to cope with the needs of the traffic.

(2) The speed of trains is generally slow, and some of them run actually slower than light railway.

(3) Punctuality of trains is less rigidly observed.

[13] See Behar & Orissa and the United Provinces Council proceedings for the years 1929 and 1931, and also Legislative Assembly reports 1931, and letters Nos. 9 and 19 of the consolidated prints of the views of the local Governments and public bodies etc., relating to the termination of the Company Railway Contracts in 1932.

(4) Lighting arrangements in Third and Intermediate class compartments is bad.
(5) Latrines in Third and Intermediate class compartments are (*a*) very narrow, (*b*) often unclean, and (*c*) generally unprovided with water taps.
(6) On most of the stations there are no facilities for the supply of water, even in hottest weather.
(7) None of the platforms and overbridges are covered.
(8) There is much over-crowding in third class carriages and sometimes passengers are found travelling on footboards.
(9) Enough booking facilities are not available at stations.

A case of violating the stipulated provisions of the Contracts.

A closer examination of the contracts will show that the existence of such grievances as given above is not permissible. Clause 16 of the Principal Contracts (of the B. & N. W. and R. & K. Railway) contains that the companies 'shall keep the railways or so much thereof as shall for the time being been opened for public traffic, and the situation and other works belonging thereof in good repairs, in good working condition, and sufficiently supplied with rolling stock plants, machinery and stores.'

Clause 17 of the same Contracts again shows that the companies should 'keep the rolling stock and fixed and moveable machinery and plant . . . . in good repairs and in good working conditions.'

But the existing conditions, eventually, prove that the companies have deliberately violated the stipulated provisions of the contracts and, therefore, the Secretary of State, according to clause 55 of the Principal[14] Contracts, is entitled to take over the possession of the railways on six months' notice of determination.

Tirhoot and Lucknow-Bareilly Sections.[15]

In regard to the Tirhoot and Lucknow-Bareilly State Railways which had been transferred to the B. & N. W. and

14 Clause 55 states that the contracts may be terminated 'if there shall be any breach on the part of the company of any stipulated provisions of the contracts . . . . and the company shall fail to effectually remedy any such default or any such breach of any of the stipulations . . . . within six calendar months after notice in writing.'

15 Consolidated prints of letters and views on Termination of the B. & N. W. and Kumaun Railway Contracts (1932).

Kumaun Railways respectively for being worked till the expiration of their respective contracts in 1932, it was the unanimous recommendation of the public that so long as the contracts of the company-owned railways were not terminated, they should be allowed to remain under the same management. Because, if they were transferred to the Eastern Bengal, and the Bombay Baroda and Central India Railways respectively (as was proposed) there was likely to occur an unnecessary rise in the rates and freights, on account of the ratio of working which were comparatively higher in those railways.

Purchase price in 1937.

An option to purchase according to the Deed of December 1932 comes off on December 31, 1937. If, however, the Secretary of State decides to forgo this option as well,[16] the next opportunity will be available five years hence, in 1942. The purchase price of the two companies in 1937 has been estimated by the Government to be roughly £11,735,000.[17] The details may be worked out on the following lines (which are true for 1942 as well).

In respect of the Bengal and North Western Railway.[18]

1. For the main lines as agreed	£ 7,628,000
2. Sterling Capital expended on Doab lines	£ 2,280,000
3. Sterling Capital advanced for expenses, other than Doab lines in excess of £333,333 between 1912 and 1937	£ 1,058,000
Total ...	£ 10,966,000
Deduct proceeds of the company's special stock	£ 540,000
Cash payable	£ 10,426,000

[16] The Government have announced their intention of not exercising the option to purchase in 1937.

[17] According to a letter dated 10th February, 1936 addressed by the Railway Board to Dr. Ziauddin Ahmad, C.I.E., M.L.A.

[18] Government Memorandum on Termination of the Company Railway Contracts in 1932.

In respect of the Rohilkhand and Kumaun Railway.

1. For the Company's original lines as agreed	£	480,000
2. Expenditure on extensions plus 20 per cent premium	£	140,000
3. Capital expenditure on original lines since 1912 in excess of Rs. 2 lakhs	£	50,000
4. Capital expenditure on Lucknow-Bareilly Section	£	220,000
Total ...	£	2,150,000
Deduct proceeds of joint debenture stock allocated to company's works ...	£	328,000
Cash payable	£	1,822,000

The total purchase price of the two railways on the basis of these calculations, is approximately £12,248,000. To pay off this amount the Government will have to fall back upon the net-earnings of the companies, the average of which for the last three years (ending 1934-35) is £ 1,874,000 (being £ 1,615,000 for the B. & N. W. R. and £ 259,000 for the R. & K. R.). Of this £367,440 may be allocated towards interest payable at 3 per cent[19] for the capital borrowed. The net profit thus resulting to the State amounts to £1,506,560. If, however, we further assume, for the sake of argument (as the Government does) that the net reductions on account of the rise in "working ratio" should also be deducted from the total net profit, there is still scope for a clear gain of £1,375,000.[20]

19 From the following statement of the Government of India loans, published in the 'Indian Finance' of January 9, 1937, page 61, it will appear that money could be borrowed even at less than 3 per cent :—

Government of India Loans

(Rupee Loans)

Year of Issue	Amount outstanding	Interest
1933	55,94,37,000	3½
1934	10,67,32,000	3
1935	15,12,85,000	3
1936	12,01,28,000	2¾
	(Sterling Loans)	
1933	10,000,000	3½
1935	10,000,000	3

20 In 1932, when calculations were made by the Government for the purchase of the railways, it was held that the rise of working ratio in the B. & N. W. will cost the Government ₨ 200,000 (the ratio of working rising from 43 to 53). And,

III

Working Results

Further statistics show that the problem of acquisition of the Company Railways in question was not unfavourable from the point of view of future prospects as well. Both the Railways are so happily situated in the matter of earnings and expenses that their acquisition by the Government would not have involved any meddling into a precarious business.

Goods and coaching earnings.

The passenger and goods earnings of these railways, as is borne out by the statistical statements provided in the Annual Administration Reports of the Railway Board, show a general upward trend even during the days of economic depression, when other railways had been suffering seriously.

I.[21] Statement of Gross-earnings from coaching and goods traffic in '000 Rs.

Year	Railway		Coaching earnings		Goods earnings
1931-32	B. & N. W.		1,39,67		1,72,01
	R. & K.		25,38		34,36
		Total	1,65,05	Total	2,06,37
1932-33	B. & N. W.		1,39,18		1,86,32
	R. & K.		25,90		35,08
		Total	1,65,08	Total	2,21,40
1933-34	B. & N. W.		1,31,63		1,98,18
	R. & K.		27,70		38,41
		Total	1,59,33	Total	2,36,59
1934-35	B. & N. W.		1,36,99		2,05,28
	R. & K.		26,98		40,65
		Total	1,63,97	Total	2,45,93
1935-36	B. & N. W.		1,47,66	Total	2,03,13
	R. & K.		26,77		40,63
		Total	1,74,43	Total	2,43,76

in respect of R. & K. it was assumed that the rise would amount at 20 per cent of the net-income. In our calculations above we have taken for granted the same ratio to be correct, for the sake of argument.

21 See I. R. A. R., Vol. II, Statement 6, different years.

It is easy to deduce from these figures that though passenger earnings of the B. & N. W. Railway are rather uncertain, and at times begin to show a downward movement; goods earnings, are, on the other hand, steadily going ahead. So that, they have risen from Rs. 17,000,000 in 1931-32 to Rs. 20,000,000 in 1935-36. But, the case has been quite different on the R. & K. Railway. Figures show an improvement in both goods and coaching earning year after year. From the point of view of these, therefore, it could be assumed that the purchase of railways was a sound proposition.

Extent of profits enjoyed in the working of Railway trains.

Another indication of hopeful prospects is also found in the rate of profits that have been accruing to the Railways in the hauling of passenger and goods trains. This rate has, during the last five years, remained remarkably steady in case of the B. & N. W. and actually progressive in that of the Kumaun Railway. Figures given below will testify to this statement:—

II.[22] Rate of profit enjoyed in hauling of passenger and goods trains.

Year	Coaching traffic				Goods traffic			
	Cost of hauling a passenger train one mile.		Profit on working a passenger train one mile.		Cost of hauling a goods train one mile.		Profit on working a goods train one mile.	
	B. N. W.	R. K.	B N. W.	R. K.	B N. W	R. K.	B. N. W.	R. K.
1930-31	Rs. 1·00	1·52	2·00	1·10	2·00	2·39	3·00	2·43
1931-32	Rs. 1·00	1·48	2·00	·90	2·00	2·14	3·00	2·59
1932-33	Rs. 1·00	1·47	2·00	1·17	2·00	2·29	4·00	3·10
1933-34	Rs. 1·00	1·46	2·00	1·23	2·00	2·26	4·00	3·50
1934-35	Rs. 1·00	1·38	2·00	1·31	2·00	2·16	4·00	3·22
1935-36	Rs. 1·00	1·29	2·00	1·35	2·00	2·04	4·00	3·30

A comparison of these with figures of other metre and broad gauge railways will also prove interesting.

22 *Ibid.* pages 116 and 117, statement No. 15, 1930-31 to 1934-35.

III.[23] Rate of profits in other Railways during 1935-36.

Railway	Coaching traffic: Cost of hauling a train per mile.	Coaching traffic: Profits per mile.	Goods traffic: Cost of hauling a goods train per mile.	Goods traffic: Profits per mile
M. G.				
B. B. & C. I.	Rs. 2·5	1·8	4·6	4·1
E. B.	Rs. 2·5	0·1	4·1	2·9
M. & S. M.	Rs. 2·0	0·5	3·3	3·1
S. I.	Rs. 2·0	0·4	3·6	3·5
B. G.				
E. B.	Rs. 3·2	—0·6	6·9	3·9
E. I.	Rs. 2·3	1·1	5·7	3·9
N. W.	Rs. 3·4	0·3	6·9	5·9
G. I. P.	Rs. 2·7	Nil	6·9	5·1

It is now clear that none of the railways mentioned above, have, on the whole, succeeded in attaining the same standard of profits as the B. & N. W. and the Kumaun Railways. They could, therefore, safely be relied upon, as being able to stand the strain of purchase, and the likely increase in "working expenses."

Working expenses.

Against the gross earnings resulting from passenger traffic, the amount of working expenses incurred by the two companies is by no means very considerable. The percentage of total working expenses to gross-earnings has never risen above 48 in the B. & N. W. R., while in the R. & K. R. it has fallen to 47 in 1934-35 from 52½ in 1930-31.

IV.[24] Working expenses and their percentage to gross-earnings.

Year	Total working expenses: B. N. W.	Total working expenses: R. K.	percentage to gross-earnings: B. N. W.	percentage to gross-earnings: R. K.
1930-31	Rs. 1,55,09,000	34,41,000	47·74	52·48
1931-32	Rs. 1,46,03,000	32,27,000	46·34	52·19
1932-33	Rs. 1,47,53,000	30,13,000	44·81	47·25
1933-34	Rs. 1,46,86,000	31,87,000	43·97	47·30
1934-35	Rs. 1,58,05,000	32,33,000	45·30	46·31
1935-36	Rs. 1,67,24,000	31,36,000	46·94	44·94

23 *Ibid.*

24 *Ibid.*, pages 43 to 44 and 55.

The amount allocated for working expenses by other important railways may also be mentioned here for the sake of comparison.

V.[25] Working expenses and their percentage to gross-earnings during 1935-36.

Railway		Total working expenses	Percentage to gross-earnings
H. M. G.		Rupees	
B. B. & C. I.	...	2,80,17,000	55·20
M. & S. M.	...	1,96,87,000	62·30
E. B.	...	1,45,88,000	76·00
H. B. G.			
E. I.	...	11,80,31,000	62 57
G. I. P.	...	9,18,99,000	70·06
N. W.	...	12,02,32,000	73·05

It is evident from these figures that a rise in the existing percentage of working ratio has long been due, and a 10 per cent rise will only help the company railways to attain just an average standard of equipment, not higher than that existing in other important railways of India (specially state-managed lines).

Net-earnings.

Making allowance for all the expenses incurred by the Bengal and North Western and Kumaun Railways, we find that the net-earnings accruing to them is, never the less very high. So that they are able to pay off to the shareholders annual dividends ranging between 16 and 19 per cent. The proposition of purchase from this point of view again was attractive.

VI.[26] Net-earnings and Dividends paid.

Years	Net-earnings		Dividends paid	
	B. N. W.	R. K.	B. N. W.	R. K.
1931-32	Rs. 1,69,07,000	29,55,000	16	15
1932-33	Rs 1,81,68,000	33,63,000	16	15
1933-34	Rs. 1,87,17,000	35,51,000	16	16
1934-35	Rs. 1,88,31,000	37,47,000	...	...
1935-36	Rs. 1,88,95,000	38,74,000	...	...

25 *Ibid.*

26 *Ibid.* St. 5, pp. 43 and 44 (1931-32 to 1935-36).

Volume of Traffic.

We have already seen in Statement No. I of this paper that the total passenger earnings of the B. & N. W. and Knmaun Railways are gradually falling. This is an important feature of railway working, and reflects upon the popularity of the railways. It will be revealed from the figures given below that the fall of earnings is due to a general decrease in the number of passengers carried.

VII.[27] Number of passengers carried annually.

Years.	Number of passengers	
	B. & N. W. R.	R. & K. R.
1929-30	39,702,800	6,090,000
1930-31	36,418,300	6,677,000
1931-32	31,650,100	6,100,600
1932-33	30,273,000	6,241,900
1933-34	28,687,000	6,756,000
1934-35	28,883,000	6,623,000
1935-36	31,192,000	6,627,700

On the other hand, we find that the volume of goods traffic is increasing, which has in its turn resulted in a corresponding rise in goods earnings.

VIII.[28] Amount of goods carried (in Tons).

Years	B. N. W. R.	R. K. R.
1930-31	3,425,000	1,053,000
1931-32	3,698,000	984,000
1932-33	3,987,000	1,051,000
1933-34	4,384,000	1,237,000
1934-35	5,214,000	1,431,000
1935-36	5,220,000	1,502,000

The loss of passenger earnings may be attributed to two factors, namely, Economic Depression and Road Competition. The former, in ordinary circumstances, should affect goods

27 *Ibid.* St. 12, pp. 93 and 94 (1929-30 to 1935-36).

28 *Ibid.* St. 13, pp. 103 (1931-32 to 1935-36).

traffic more than passenger traffic, while the latter may affect either, or both at a time. In case of the B. & N. W. and R. & K. Railways, however, we find that they are losing ground in passenger traffic and gaining stronger hold on goods traffic. Thus, on the whole, there is no loss in total earnings, yet it is clear that the railways are growing more and more unpopular among the passengers, and road rivals are gradually coming to prominence. The loss, therefore, is evidently, due to road competition, rather than economic depression.

The favourable movement of goods traffic on the other side, is probably, the sole result of the recent developments in agriculture and industries of certain parts in the United Provinces and Behar and Orissa. If, therefore, provisions for additional traffic conveniences (in the form of special rates and freights and amenities to traffic) are duely provided, there are reasons to expect that the profits would continue to swell. Unfortunately, there are no statistics to show what part of the agricultural produce is being annually diverted to roads and rivers (where alongside with these, railways are in operation). But, those who possess the experience of dealing with transportation of commodities are aware of the fact that the growing agricultural prosperity of Eastern districts (specially in sugarcane) has widened the scope for roads and railways tremendously. It is, therefore, high time that the railways, serving in these districts, should profit by the opportunity, for, if they do not rise to the occasion they will have to make room for others.

IV

Conclusion

Why Railways were not acquired ?

In spite of the most favourable circumstances, however, the Hon'ble the Railway Member declared the inability of the Secretary of State to purchase the lines in 1937. His explanation of this decision was given before the Council of State on February 20, 1937 in the following words:—

> "The Government decision not to acquire the B. & N. W. and Kumaun Railways at the expiration of their respective contracts was arrived at purely on the financial merits, mostly, though not entirely of the individual railway concerned. It was not true that money was cheap, but the Government went into all aspects and concluded that at present moment the

> acquisition was not a profitable investment . . . . The income of the B. & N. W. and Kumaun Railways was low, but the dividends high, and the conditions . . . . were very bad and immediately after the acquisition a vast improvement would have been necessary, adding enormously to the cost. In acquiring all the three railways simultaneously there was another risk, namely, the disturbance of the market owing to heavy sterling remittance abroad."

What has been said in the preceding pages fully explains the financial position with regard to purchase, and establishes a case in favour of terminating the B. & N. W. and Kumaun Railway Contracts. But the Government conclusion in this respect, which is claimed to be based on 'purely financial reasons,' is just the reverse. Unfortunately, we do not know what statistics have been used in arriving at this conclusion.

The Government have also denied the general belief that 'the money was cheap.' But no one can deny the fact that during the last five years the Government of India have raised as much as Rs. 94 crores (Rupee loan) and £ 20 million (Sterling loan) at the rate of 4 and less than 4 per cent.[29] We also find that during the same time some of the Indian States have succeeded in raising money in India at 3½ and 4 per cent.[30] Is this an indication of dear money?

It is further argued that the 'income of the B.& N. W. and Kumaun Railways was low, but the dividends high.' This allegation again falls to the ground. When we look into the figures[31] and compare the rate of annual net-earnings of these railways with those of others in the country, we will find that not only the percentage of total net-earnings is huge, but also that during the last five years they have been rapidly increasing.[32]

It is also feared by the Government that the purchase would involve enormous additions to the cost of working. But we should not forget that this burden will have to be borne whenever the purchase is affected. The more the delay, the worse the conditions are likely to be. The cost of improvements will, therefore, continue to go up with the passing of years.

29 See footnote 19 of this paper.

30 Recently Bhopal State has borrowed in India at the rate of 4 per cent.

31 See Statement VI of this paper.

32 *Ibid.* It will be noted that the net-earnings show an improvement of Rs. 29,07,000 in 1935-36 over that of the year 1931-32.

In regard to heavy sterling remittance abroad, which is feared to disturb the market, it should be remembered that the Government have, by no means, evaded this disturbance by their decision of not taking over the company railways. The problem remains, in all seriousness, to be tackled once more after five years, when the next opportunity to purchase will be available. Had the Secretary of State now acquired at least the company-owned sections, the burden for future (in respect of the State-owned M. & S. M. Railway) would have remained considerably reduced. With the M. & S. M. Railway, however, also hangs the problem of amalgamation with the S. I. Railway, the Contract of which is not due to expire before 1945. It would have, therefore, been wiser (from financial point of view) to have acquired the B. & N. W. and Kumaun Railways without waiting for a further opportunity.

Let us also recall here that it was the unanimous recommendation of the Acwarth Committee 'that the system of a management of companies of English domicile should not be continued on the termination of the existing contracts.' And, later Sir George Rainey in his resolution dated 3rd October, 1931 also recommended that the contracts of the companies should not be extended beyond December 1937. This resolution was forcefully supported by the Select Committee which reported on the purchase of the Bengal and North Western and Rohilkhand and Kumaun Railways on April 1, 1931. They said, 'The Government should enter into negotiations with the two companies to obtain from them an opportunity to purchase the lines on most favourable terms on the 31st December, 1937 subject to one year's notice, or if possible on the 31st December of an earlier year, again subject to one year's notice.' Apart from these the overwhelming public opinion has always opposed further extension of the contracts, as is evident from the resolutions of the Provincial Councils of U. P. and Behar, and the Legislative Assembly in 1929, 1931, 1932 and 1936.

By refusing to acquire the Railways, under these circumstances, the Secretary of State has not only acted against the accepted policy of the Government of India, but also against the host of tax payers, who had been looking forward for the purchase as a means of increasing comforts and reducing railway charges.

The Government while deciding to forego the option to purchase in 1937 should not have remained unmindful of the critical times that the railways in India are awaiting due to the increasing pace of road competition and rapid developments in the air-craft. If, therefore, the present conditions of

railway working are not improved and steps are not taken to check the force of rivals by legitimate and economic means, we should shortly expect a crisis in railway earnings, which shall be of far-reaching effects. It is, therefore, necessary that during the five years when the B. & N. W. and R. & K. Railway contracts are to continue under company management, the Government should keep a vigilant eye over them, and force them to improve conditions of transport administration so as to bring them to the level of state-managed railways in India. If such steps are not taken it is likely that the proposition of purchase in the year 1942 may become exceedingly unsound from the commercial point of view. Rolling stock and conditions of travel might, during these years, so deteriorate, as to make it difficult for the Government to bring them to the normal.

CROP-REPORTING IN INDIA

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Crop reporting has come to be recognised as one of the essential functions of every Government, as reliable data relating to acreage and production of crops is necessary for forming its agricultural policy. It was in the sixties of the last century that some countries in Europe and America started the collection and publication of acreage and production figures of some of the important crops.

History.

In 1866 tabular forms for compilation of statistical data regarding crop acreage were proposed by a Statistical Committee and adopted by the Government of India for publication as appendices to the annual reports on General Administration. These forms were modified in 1884 and published under the title of " Returns of Agricultural Statistics of British India." For the first time estimates of production were made in a rough and ready manner by the Famine Commission of 1880. In 1883 a firm in Liverpool, which was interested in the wheat trade, approached the Secretary of State with a request to direct the Indian Government to collect information regarding the production of wheat on the lines followed by the Department of Agriculture U.S.A. The Government of India on the receipt of a dispatch from the India Office convened a conference of officials in Calcutta in 1883 with a view to discuss the problems of collecting statistics of crop production. The line of work was drawn out at this Conference and in 1884 arrangements were completed for publishing crop forecasts relating to wheat which were shortly extended to cotton, jute, rice and oilseeds. In 1892 figures of "normal yield" per acre were computed from various sources and in the following year a system of crop-cutting experiments was instituted to furnish results in the light of which normal yield figures were to be revised at the end of each quinquennium. In 1895 all publications relating to crop statistics were unified by the creation of the Statistical Bureau with a Director-General at

its head. In 1905 this Bureau was amalgamated with the Department of Commercial Intelligence. In 1914 the Department of Statistics was separated but was subsequently unified with that of Commercial Intelligence and at present all official data concerning crop statistics relating to India as a whole is published by the Department of Commercial Intelligence and Statistics, India. The provincial governments continue to publish for their own provinces "Season and Crop Reports" which are freely drawn upon for compiling the figures for the whole of India.

Crop statistics were originally collected to facilitate the assessment of land taxation and for the convenience of the trade in agricultural produce. However in 1907 the Government proclaimed that the main purpose of the collection of crop statistics was its use to the public in general and to itself, and its use for persons in the grain-trade was only a secondary purpose. By 1895 most of the provinces in British India evolved a crop reporting service although the area included under agricultural statistics continued to increase slowly and steadily as the work of surveying and mapping of village lands extended. Most of the Native States followed one after another in setting up an agency to collect crop statistics and in 1933-34 the total area of the seventy states which reported statistics was 56 per cent of the total area of all Native States. This gradual increase in area included under agricultural statistics is shown in the following table:

Year	British India	Native States	Total
	(Figures are	given in million	acres)
1884-85	356	...	356
1885-86	361	...	361
1886-87	364	15	379
1887-88	374	16	390
1888-89	423	16	439
1889-90	431	16	447
1890-91	535	17	552
1891-92	528	16	544
1892-93	530	17	547
1893-94	527	17	544
1894-95	539	...	539
1895-96	542	...	542
1896-97	537	32	569
1897-98	542	32	574
1898-99	545	46	591
1899-1900	545	46	591
1900-01	549	47	596

Year	British India	Native States	Total
	(Figures are given in million acres)		
1901-02	553	47	600
1902-03	554	47	601
1903-04	554	47	601
1904-05	556	47	603
1905-06	557	47	604
1906-07	584	47	631
1907-08	619	61	680
1908-09	623	72	695
1909-10	624	72	696
1910-11	619	80	699
1911-12	619	82	701
1912-13	619	82	701
1913-14	620	83	703
1914-15	619	82	701
1915-16	620	81	701
1916-17	619	82	701
1917-18	620	82	702
1918-19	625	89	714
1919-20	625	130	755
1920-21	621	133	754
1921-22	667	134	801
1922-23	667	134	801
1923-24	668	135	803
1924-25	668	133	801
1925-26	668	134	802
1926-27	668	134	802
1927-28	670	135	805
1928-29	670	136	806
1929-30	670	139	809
1930-31	669	142	811
1931-32	669	143	812
1932-33	668	144	812
1933-34	667	145	812

N.B.—Area shown is that by professional survey.

It will be clear from the above table that recent figures of acreage and production of crops are largely incomparable to earlier ones on account of this increase in the area reported.

Crop-Year.

Most of the provinces and some of the Native States report their figures for the year ending 30th June, but as will be seen

from the following statement, the crop year is widely different in some provinces and many of the Native States, which do not conform to the most recognised crop-year, *viz.*, that ending with 30th June.

Crop-Year ends with.

31st March: Assam, Baganpalle, Sandur.

12th April: Kashmir Province and frontier districts of Kashmir.

31st May: C.P. and Berar.

5th or 6th June: Jath, Phaltan.

30th June: Ajmer-Merwara, Bengal, Bihar and Orissa, Bombay, Burma, Coorg, Delhi, Madras, N.-W.F.P., Punjab, U.P., Baroda, Benares, Bharatpur, Cochin, Dharampur, Dujana, Gwalior, Indore, Kishengarh, Kotah, Mysore, Nagod, Narsinghgarh, Patiala, Pudukottai, Tehri-Garhwal, Travancore.

5th July: Aundh.

31st July: Sachin.

31st August: Jaipur.

16th September: Jammu Province of Kashmir.

22nd September: Bilaspur.

30th September: Barwani, Bhopal, Bundi, Dholpur, Jhalawar, Mewar, Rampur.

5th October: Hyderabad.

31st October: Alwar, Bikanir, Rajgarh, Tonk, Bhavnagar.

The dates of ending the crop-year range from 31st March to 31st October. It is beyond dispute that a uniform crop-year in all parts of India will greatly improve the present figures regarding acreage and production. In 1895 Bombay used to end its crop-year on 31st July and Punjab on 30th September but efforts were successfully made to change the above dates and bring them into conformity with the most recognised crop-year. Such an effort does not seem to be made by any of the Native States and it is an urgent necessity, as regards improvement of statistics, to remove this anomaly. Out of the two crop seasons, *viz.*, Kharif and Rabi the figures regarding the harvests of the former get

mixed up owing to this lack of uniformity in the crop-year. In areas where the crop-year ends before the beginning of the rainy season the calendar year's Kharif crop is included in the coming crop-year and in the case of those areas where the crop-year ends after the close of the rainy season the calendar year's Kharif crop gets included in the previous crop-year, *e.g.*, in Assam the rice crop of 1937 would be called that of 1937-38, while the one in Hyderabad would be called that of 1936-37.

Acreage.

There are two distinct systems of reporting the acreage under crops current in India, and the accuracy of the figures obtained from each of them varies widely. In all tracts where the individual occupier of land pays the full amount of land tax assessable on his land to the Government, fields have been surveyed and a cadastral map of the village is kept by the headman[1] who is an employee of the Revenue Department of the province. All the " Rayatwari " tracts, *e.g.*, Madras, Bombay, Punjab, Hyderabad, etc., fall in this group and the following description of the acreage reporting system is, *mutatis mutandis*, applicable to all of them. The village accountant[2] who is in charge of the collection of land-tax for one or a small group of villages makes a statement of acreage under each crop in the area in his charge either from actual field-to-field inspection or by verbal inquiry with reference to the cadastral maps. He forwards this statement to his immediate higher official[3] who is usually in charge of a sub-division of a Taluka.[4] The Circle Inspector assembles the figures for his sub-division and sends them to the Taluka Officer.[5] Taluka Officers compile figures for their Talukas and forward them to the Director of the Agriculture, Land Records or the Statistics Department of their province or State according to which department is made responsible for the ultimate compilation of this data. The Directors are responsible for the publication of provincial figures and also for reporting them to the central statistical agency. The accuracy of these figures is as high as is possible under any existing system

1 Vernacular Patel, Patil, etc. This office is inherited and the remuneration from Government comprises of cash salary and exemption from land-tax on the land held by the headman.

2 Vernacular Kulkarni, Talati, Shanbag, Patwari, etc.

3 Circle Inspector or Revenue Inspector.

4 A Taluka is the sub-division of a district.

5 Vernacular Tehsildar or Mamlatdar.

and the village accountants who primarily report the figures cannot be suspected to be biassed in any direction except perhaps in the return of figures of acreage under improved varieties of crops.

The tracts where the second system is prevalent still represent a considerable area. These consist of permanently settled estates, lands held on privileged tenure and unsurveyed areas, which are mainly in Bengal, Bihar, Orissa, Northern Madras, and Oudh. There are neither any cadastral maps of villages nor village accountants because land tax, where payable, is collected from estate-owners directly by the higher officials of the revenue department. Figures of acreage under crops are roughly estimated by district officials on their own knowledge and on verbal enquiries from their subordinates and a few landowners, and these figures are more or less conjectural. The district officers forward the figures for their districts to the provincial authorities, where they are dealt with by the latter in a similar manner as those collected under the first system. Thus acreage figures relating to the whole of India are a combination of those greatly varying in accuracy and therefore not too great reliance can be placed upon them. The acreage figures refer to the acreage sown under each crop, unless an area on which the first sown crop is a failure is sown with another crop, in which case the area is deducted from the first and added to the second. In case of mixed crops the provincial authorities apportion the reported area to each of the crops according to formulæ fixed by them.

Production.

Estimating production is a much more difficult and complicated task than that of acreage. At present the formula employed by the crop-reporting agency is the following:

Production=acreage × "normal yield per acre"[6] × condition estimate as percentage of the normal

Here we have to deal with the second and the third item on the right-hand side of the equation. The unit to which the formula is applied is the district for which figures of "normal yield" have been compiled for each of the principal crops, and

[6] Official reports designate this term differently in different publications, *e.g.*, it is called "average yield per acre" in the annual publication "Agricultural Statistics of India Vol. I," and "standard normal outturn" in another annual publication "Estimates of Area and Yield of Principal Crops in India." "Normal Yield" is thought to be a more appropriate term and is used throughout this article.

where necessary under two headings, *viz.*, (1) irrigated crop and (2) unirrigated crop. These figures as stated before were first compiled in 1892 and are revised every five years by the officials of the agricultural departments in view of the results of crop-cutting experiments and their own personal knowledge. The definition of "normal yield" given in official publications is vague and far from being precise and exact in its meaning. The following two quotations illustrate the language used in official reports when attempting to describe if not define the concept of normal yield.

"The estimate of standard yield should represent the average outturn on average soil in a year of average character as deduced from the information obtained from experiments made up to the period under review. When therefore this average is multiplied by the average area sown, the result should give as near an approximation as possible to the outturn of the crop in an average year."[7]

"A normal crop may be defined as that crop which past experience has shown to be the most generally recurring crop in a series of years, the typical crop in the local area; the crop which the cultivator has a right (as it were) to expect, and with which he is (or should be) content, while if he gets more he has reason to rejoice, and if less he has reason to complain; or in other words it is the figure which in existing circumstances might be expected to be attained in the year if the rainfall and season were of a character ordinary for the tract under consideration, that is neither very favourable nor the reverse."[8]

It is difficult to state how far the "normal yields" adopted for estimating production conform to the description given above. The concept of "average" soils in a district which grow a particular crop is vague and an actual estimate of the average is impossible sort of a complete soil survey. Average variation in soil quality is sometimes too great from one Taluka to another and its adoption as a unit for applying the formula will probably greatly improve the accuracy of the figures of production.

The most difficult and debated point in estimating production is the condition estimate. There are mainly three systems used in various countries for expressing the condition of crops, in all cases in relation to "normal" or "average" crop, the two words having different meanings in different countries.

7 *Agricultural Statistics of India*, Vol. I, 1931-32, Appendix A, page 331.

8 Estimates of Area and Yield of Principal Crops in India, 1929-30, Appendix 1, page 41.

(1) The method of percentages, in which hundred represents the normal or average and the condition is denoted as a percentage of it, is used in U.S.A., Canada and Great Britain.

(2) Second is the numerical symbol method, in which a set of figures, *e.g.*, from one to six, where usually the highest represents an average or normal crop, is used to denote the condition of the crop. This method is used in Germany and Denmark.

(3) The descriptive method of using adjectives ranging from "excellent" to "very poor" is used in Spain and Roumania.

The International Institute of Agriculture, Rome, recommends the first method in which hundred should represent "an average condition which if uninfluenced by abnormal circumstances would give a probable yield per unit of surface equal to the average yield of the last ten years."[9]

In India from historical times the agricultural population is accustomed to express condition of crops by the numerical symbol method, the figures ranging from zero to sixteen because the Rupee is divided into sixteen annas. Early in the development of compilation of production figures, the authorities concerned carefully considered the advisibility of introducing the percentage method but came to the conclusion that the "anna-system" was the best possible under the circumstances existing in India. It was at the same time decided to convert the anna-estimates into percentage figures taking the normal yield as hundred.

The primary reporter of anna-estimates is in most cases the revenue or circle inspector who makes them from his personal observation and verbal inquiries from village accountants where they exist. The Taluka revenue officer receives reports from circle inspectors and after supplementing them with his personal knowledge he makes an anna-estimate figure for the whole of his Taluka including unmapped areas for which he makes an estimate purely on his own knowledge and by comparison with adjoining mapped areas. The Taluka officer reports his condition estimates, still in the anna form, to the provincial agricultural department where they are converted into percentage figures for each district. The number of annas which is taken equal to hundred, for the purpose of this conversion differs in the various provinces and States according to local practice; it ranges from 12 to 16, the former limit being found in Madras and certain other provinces

[9] W. F. Calander, "Crop and Livestock Reporting" *Encyclopaedia of Social Sciences*, Vol. 4.

and the latter in some others, *e.g.*, Hyderabad and Mysore. These condition estimates expressed as percentages of normal after being compiled for the province are reported to the central statistical agency which publishes forecasts of production of crops.

Some of the facts which throw light on these anna-estimates and therefore on figures of production are stated below. Land tax forms a major item of revenue for the Government and perhaps the largest of the most urgent cash charges for the farmer. Reassessment of land tax where permissible under the system of land tenure largely depends on the average production of crops during the period. The Government admits a claim to suspension of collection of land tax in a particular year if the official anna estimate goes below six and to a remission in part or full if it goes below four. Moreover when a state of famine is declared relief work has to be provided at a considerable strain to the Government treasury. Thus there are two opposite points of view in making an anna-estimate, one held by the Government and the other by farmers in general. The Government wants to see firstly that it does not suffer in revenue collection as a result of suspension or remission of land tax and in expenditure on famine-relief work, and secondly that the average production of the period of settlement is raised higher than that of the previous period to enable an enhancement in the rate of land tax. The farming community on the other hand wishes exactly the opposite of the Government. The second of the wishes of the Government is obviously of much less immediate importance and hence it is not kept sufficiently in the foreground because the period of settlement which is twenty or thirty years is comparatively long. We are not here concerned with who succeeds and to what extent in the final decisions as regards suspension, remission and enhancement but only with the degree to which each of the opposing points of view impresses the anna-estimates as they are reported for the purpose of compilation of crop-statistics. The Circle Inspector and Taluka Officer who successively report the anna-estimate for the area in their charge may consult village accountants or a few big landholders but these consultations, if unsuitable for the reason of indicating too low a figure, may not affect the estimates of these officials. At the same time these consultees are likely to understate normal and above normal crops and in good years their opinion is likely to be reflected in the anna-estimates of Taluka Officers who are not primarily interested in making the figure high as long as they keep above the lower limit for full and immediate payment of

land revenue. Mr. Henderson's statement[10] that he found that in Sind a Circle Inspector always puts down eight annas as a safe figure for his returns, possibly applies to many more areas. The result of this bias on the part of the reporting officers of the revenue department is probably like this:

(1) When the actual condition is zero to three annas, that is, in years of very low yield and when a state of famine is obvious and widespread, estimates are nearer the actual.

(2) When the actual condition is four to seven annas, that is, in years of poor crops, the condition tends to be overstated usually above the six anna limit, because estimates below six annas would be unsuitable for taxation purposes from the Government point of view.

(3) When the actual condition is eight to eleven annas, that is, in years of fair but not normal crops, the condition is probably more accurately stated than in the case of the other groups.

(4) When the actual condition is normal or above normal that is, when the anna-estimate should be from 12 to 16, reports tend to be understated at about twelve annas.

If adjectives were to be substituted for the above statement it can be said that "excellent" crops are reported as "good," "poor" as "fair," while "good" and "fair" crops are more or less correctly reported.

Efficiency of Service.

Besides this bias discussed above another factor which enters into the estimation of the degree of reliability of figures of production, is the efficiency of the reporting service. Mr. Stuart states that he found a Taluka "where no village accountants kept any accounts and where all figures were invented at the close of the year or so it seemed.[11] Mr. Dow stated in 1927 that some of the figures for the Karachi district were till recently fixed on the authority of a casual demi-official letter

10 The Royal Commission on Agriculture in India, *Minutes of Evidence*, Vol. I, part 2.

11 "The Seasonal Factor in Crop Statistics" G. A. D. Stuart. *Agricultural Journal of India*, Vol. 14.

from a Collector who got them by questioning a local landowner.[12] One cannot estimate the extent of such irregularities but probably the cases cited above are not uncommon because reporting of crop statistics is one of the minor duties of the revenue department, its main functions being the assessment and collection of land tax and magisterial duties. Mr. King stated that it is doubtful whether any reliance could be placed on the results obtained by the revenue officers entrusted with the duty of making the estimates.[13] The Indian Economic Inquiry Committee appointed in 1925 made some important suggestions towards the improvement of crop statistics and stated in its report that the probable error in figures of production is about plus or minus twenty to thirty per cent.

12 The Royal Commission on Agriculture in India. *Minutes of Evidence*, Vol. 11.

13 Ibid., *Minutes of Evidence*, Vol. 8.

SEASONAL VARIATIONS IN COST OF LIVING

BY

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The annual course of the earth round the sun, causing the regular sequence of the seasons, affects profoundly the affairs of men. Not only does it influence the ebb and flow of activities in industries which depend pre-eminently on natural forces and conditions, such as agriculture, but it also affects in a subtle and indirect way various other fields of activity, where it is often difficult to trace the channels through which the influence is exerted. Sometimes certain customs and practices, which may or may not be connected with the natural physical conditions associated with changes of seasons, give rise to regular periodical fluctuations in economic activities. A good illustration is provided by the regular rise in the price of silver in India during the marriage season. India being a predominantly agricultural country, the seasonal variations in her economic activities are naturally conspicuous, and leave their impress on various classes of statistical data. These are sufficiently well-known, but a few illustrations may not be out of place here. The death-rate in British India, on the average of the fifteen years, 1904—18, was 40 per cent higher in November and 18 per cent lower in July, than the average death-rate for the year, having made due allowance for the unequal lengths of different months. Again, the Imperial Bank 'hundi rate,' *i.e.*, the rediscount rate for first class bills of 61 days' date, was, on the average of eight years' figures (1923—30), 25 per cent higher in March and 24 per cent lower in August, than the average rate for the year. The average monthly note circulation during the decade 1923-24 to 1932-33 was 2 per cent higher in February and 5 per cent lower in August, than the annual average circulation. The difference between the maximum price of rice in Patna (attained in the month of August) and its minimum price (attained in the month of December) worked out at 16 per cent of the average price of rice at Patna on the basis of ten years' figures. Even in the case of the output of coal in India, the raisings in February were 15 per cent higher and in August 15 per cent lower, on the average

of seven years' (1929-30 to 1935-36) figures, than the average raisings for the year; this being mainly the result of the seasonal desertion of the colliery by the miners for the agricultural pursuits in the villages.

It is proposed in this paper to examine to what extent the cost of living of the working classes is subject to seasonal variations. For this purpose I have examined in detail the cost of living index of the working classes in Bihar and Orissa as published monthly by the Director of Industries in Bihar and Orissa from 1922-23 onwards. The method of construction of this index I have examined at considerable length in my article entitled "A Study in Indian Cost of Living Index Number," published in the October 1934 and January 1935 issues of the *Indian Journal of Economics*. Some of the relevant features of this index may, however, be briefly noted here. A separate index is published for each of the seven centres: Patna, Muzaffarpur, Monghyr, Jamshedpur, Cuttack, Jharia, and Ranchi; the series for the last-mentioned centre being taken up in 1925-26. The index is meant to apply to workers with incomes not exceeding Rs. 40 per month. The consumption of the working classes, made up of about 28 items, is grouped under four heads, *viz.*, (*a*) food grains, comprising rice, wheat flour, maize and barley, and gram and pulses; (*b*) other articles of food, comprising sugar, salt, fish and meat, milk, ghee, spices, vegetables (potatoes and brinjals), and food oil; (*c*) lighting and fuel, comprising coal, firewood and kerosene; and (*d*) clothing, comprising *dhoti*, *motia* cloth and longcloth. The practice is, however, not uniform for all the centres. Thus the item 'lighting and fuel' does not enter into the Jharia index at all; milk and ghee are excluded from 'other articles of food' in the Cuttack index; spices include onions at all centres except Cuttack where betel nuts are included instead; the weights attached to different items vary from centre to centre except in the case of the three centres for Bihar proper, *viz.*, Patna, Muzaffarpur and Monghyr, where they are similar. Prices are ascertained only once on the last day of each month. Arithmetical average is used in computing the index which has for its base, the five pre-war years ending in 1914.

The method I have followed here is simply to calculate for each centre the average index for each month by summing up the figures for the fourteen years, 1922-23 to 1935-36, and dividing the total by fourteen. Only in the case of Ranchi the average is based on eleven years' figures (1925-26 to 1935-36). Having thus got for each centre the average index for each month of the year, these monthly indices were recalculated to make the average

for the twelve months of the year equivalent to 100. Then the figures for each month for the seven centres were combined and thus an average index for each month of the year was found for the province as a whole. As against the method followed here it may be pointed out that the influence of the trend on the seasonal figures, particularly as a downward trend is quite marked from 1928-29 to 1933-34, has not been eliminated. Statistical devices, such as the line of least squares, are available for calculating and eliminating the trend; but the process in this particular case would be too tedious and as the period covered (14 years) is fairly long, including a few years with rising costs as well, I have not deemed it necessary to take the help of statistical refinements. The results of the computation are given below :—

	Patna	Muzaffarpur	Monghyr	Jamshedpur	Cuttack	Jharia	Ranchi	*Average*
January ...	95	96	94	97	94	92	92	*94*
February ..	97	95	95	96	93	92	92	*94*
March ...	96	97	96	95	93	93	93	*95*
April ...	99	100	99	99	97	98	98	*99*
May	100	100	100	101	101	101	101	*101*
June	102	101	103	102	104	103	106	*103*
July	103	103	105	102	108	107	107	*105*
August ...	105	105	105	104	108	108	106	*106*
September ...	105	101	101	102	106	107	106	*105*
October ...	104	101	104	103	101	107	106	*104*
November ...	100	99	100	102	99	100	99	*100*
December ...	95	96	95	99	96	91	93	*95*

An examination of the above table indicates that the spread between the highest and lowest cost of living was 10 per cent in Patna and Muzaffarpur, 12 per cent in Monghyr, 8 per cent in Jamshedpur, 16 per cent in Cuttack, 17 per cent in Jharia, and 15 per cent in Ranchi. The spread between the maximum and minimum cost of living for the province as a whole may be taken to be 11·5 per cent. January and February are the months when the cost of living is lowest and August is the month when the cost is highest. The extent to which the lower cost of living in the

winter months, December to March, represents a real gain to the working population would, of course, depend on the fluctuations of their income due to shorter working day in winter, etc., and also on the extent to which the additional expenditure to which the workers are put in providing themselves with blankets, more coal and firewood, etc., has been taken into account in the family budgets on which the cost of living index must be based.

Turning now to the different components of the cost of living, a similar process as that followed above, gives us the following results for the province as a whole, *i.e.*, for the seven centres taken together:—

	Food grains	Other Articles of Food	Lighting and Fuel	Clothing
January	96	87	99	98
February	97	86	98	97
March	97	88	98	96
April	101	93	101	104
May	102	97	101	103
June	104	109	102	101
July	104	109	102	101
August	105	111	101	101
September	103	112	102	100
October	100	114	100	99
November	97	107	100	99
December	95	93	99	98

It appears from the above table that the spread between the highest and lowest cost of living, so far as 'food grains' are concerned, is about 10 per cent (Patna 10 per cent, Muzaffarpur 8 per cent, Monghyr 12 per cent, Jamshedpur 5 per cent, Cuttack 13 per cent, Jharia 14 per cent, and Ranchi 17 per cent); in the case of 'other articles of food' the spread is 28 per cent (ranging from 16 per cent in the case of Jamshedpur to 43 per cent in the case of Cuttack); in the case of 'lighting and fuel' the spread is about 4 per cent (varying from 3 per cent in Patna to 8 per cent in Cuttack); and in the case of 'clothing' the spread is about 8 per cent (varying from 5 per cent in Cuttack to 10 per cent in Ranchi). Thus the seasonal variations of prices are highest in the case of 'other articles of food' (mainly because of the well-known fluctuations in the prices of fish, potatoes, brinjals, onions, etc.,—articles which are incapable of being stored) and lowest in

the case of 'lighting and fuel.' It is also worth noting that while in the case of the first three groups of items the minimum prices are attained sometime between December and February, and the maximum prices between August and October, in the case of clothing the maximum comes suddenly in April after reaching the minimum in March. This appears to be chiefly due to the advent of the marriage season in April.

Taking all the components together (reference may be made to the first table) an industrial centre like Jamshedpur shows the smallest seasonal variations in the cost of living, while Jharia shows the highest (due partly to the absence of the steadying influence of 'lighting and fuel' which is omitted altogether from the cost of living of this centre).

Leaving now the question of seasonal fluctuations, if we turn to examine the extent to which cost of living was affected by the phenomenal fall of prices during the last economic depression, we find that, barring peculiarities of individual centres, the cost of living index remained fairly stable from 1925 to 1928. Indications of a fall in the cost of living, apart from seasonal variations, became apparent during the period September 1929—January 1930 and the landslide commenced in the interval between April 1930 and October 1930. The lowest fall in the cost of living was recorded about the time May 1933—November 1933; and the cost of living had begun definitely taking an upward turn in the period March 1934—June 1934. If we examine the different constituents of the cost of living index we notice some interesting features. Confining ourselves to the period characterised by a marked fall in the cost of living, *viz.*, the period from 1928-29 to 1933-34, we find that, on the average, the fall was greatest in the case of 'food grains,' *viz.*, 51 per cent and least in the case of 'lighting and fuel,' *viz.*, 19 per cent; while it was 36 per cent and 31 per cent in the case of 'other articles of food' and 'clothing' respectively. Further, though the fall in the cost of living, so far as 'food grains' and 'other articles of food' are concerned, had reached its lowest depth in the year 1933-34, the fall continued even in 1934-35 in the case of the other two groups, *viz.*, 'lighting and fuel' and 'clothing.' Again, compared with the pre-war (average of five years ending 1914) cost of living, the cost of clothing even in the period of its lowest fall (1934-35) was approximately the same as the normal pre-war average; the cost of 'other articles of food' and 'fuel and lighting,' at their lowest, was about 25 per cent higher, and the cost of 'food grains' about 25 per cent lower, than the pre-war normal.

Let us now examine to what extent changes in the cost of living have kept pace with fluctuations in wholesale prices. With that end in view I have taken the decade 1925—34 and have recalculated the cost of living index for each calendar year instead of the financial year as given in the official publication. This was rendered necessary because the Calcutta wholesale index, which I have taken for comparison, refers to calendar year. Further, I have struck an average for the seven centres for which cost of living indices are published. I have also, for facilitating comparison, taken both the cost of living index and the wholesale index for the year 1925 as equivalent to 100 and recalculated the figures for the subsequent years on this basis. The results of the comparison are given below:—

	Cost of Living Index (Average of seven centres)	Wholesale Price Index (Calcutta)
1925	100	100
1926	101	93
1927	93	93
1928	99	91
1929	93	89
1930	80	73
1931	65	60
1932	61	57
1933	56	55
1934	57	56

It is too much to expect perfect agreement between the two series in view of their different compositions, yet it must be said on an examination of the series that the resemblance between the two, particularly from 1929 onwards, is striking. The only general remark that can be made regarding this period is that the cost of living figures have consistently remained at a slightly higher level than the wholesale price index, with, however, a tendency for the difference to be gradually obliterated.

Lastly, an attempt has been made here to find out how far the real wages of workers, as distinguished from their money wages, have been affected by changes in the cost of living. Statistics of year-to-year fluctuations of money wages are available only for certain classes of workers employed in the organised industries. These are published in the annual report of the Chief Inspector of Factories, Bihar and Orissa (Wages Return). From

these I have constructed a wage index by taking an average of the wages ruling in seventeen occupations (chargeman in charge of skilled labour, chargeman in charge of unskilled labour, blacksmith, bricklayer, carpenter, compositor, electrician, engine driver, fireman, fitter, greaser, moulder, pattern maker, turner, male cooly, female cooly, and child cooly), without making any attempt, in the absence of the necessary data, to weight the different classes of wages in accordance with the number of wage-earners in the class. The following table indicates the movements of real wages of factory labour in Bihar and Orissa since 1925:—

	Cost of Living Index	Wage Index	Index of Real Wages
1925	100	100	100
1926	101	103	102
1927	98	118	120
1928	99	118	119
1929	93	126	135
1930	80	125	156
1931	65	108	166
1932	61	110	180
1933	56	115	205
1934	57	114	200

The above table points to the conclusion, borne out by the experience of other countries as well, that real wages tend to improve in periods of falling prices and deteriorate in periods of rising prices. As against a rise of real wages in times of falling prices, we have, however, to put down the increasing volume of unemployment which is a concomitant of falling prices. Figures of unemployment are not available in India, but we have statistics of the average number of hands employed daily in the factories of Bihar and Orissa, as published in the report of the Chief Inspector of Factories. These figures, however, refer to the maximum number of persons employed on any one day of the year, and so take no account of either short time or of the months in which there may have been a considerably less number of persons than the maximum. An examination of these statistics, however, gives a clue to the extent of unemployment in the organised industries during the economic depression. In interpreting these figures it should be borne in mind that throughout this period the population had been increasing continuously.

The following table sets out the figures of employment in Bihar and Orissa since 1925:—

	Average number of hands employed daily in the factories of Bihar and Orissa
1925	73,641
1926	74,323
1927	71,400
1928	68,100
1929	68,726
1930	66,315
1931	63,959
1932	65,515
1933	72,254
1934	78,224

INDIA'S PROBLEM OF UNEMPLOYMENT SEEN THROUGH A NEW OPPORTUNITY: AVIATION AS A CAREER TO THE EDUCATED UNEMPLOYED: A TEN-YEAR PLAN

BY

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India's great employment possibilities.

That great automobile industrialist, Henry Ford, whose one creative idea has given to millions of men and women work and wages, reviewing America, has made this significant statement:—"A generation ago, there were a thousand men to every opportunity, while today, there are a thousand opportunities for every man." India, is indeed not America. We Indians cannot afford to indulge in the optimistic economics of the American magnates. But, with Ford, we too can say of our Land:—"This is a country, with a big population, having big needs, and calling for big production and big supply." The truth of this becomes obvious if we just consider the difference it would make by withdrawing India from the production world and the consumption world. The Editor of the *Indian Finance* brings home the same fact when he says:—"India's economy is a vital factor in the world economy . . . . if each Indian would consume one yard more per annum, the cotton mills of the world need not suffer from unsold stock; if each Indian would drink a cup of tea more per day, the world's tea industry would hardly be able to cope with the demand; if each Indian would consume the normal amount of wheat, coffee, and sugar, sufficient for economic efficiency, wheat need not be burnt, coffee need not be thrown into the sea, nor sugar seek restrictive treaties. The increased consuming power of India's 350 millions would make a world of difference to the world market suffering from glut." Within our boundaries then there are immense possibilities of production and consump-

tion. Do they not connote corresponding avenues of employment possibilities?

We want Opportunity.

In the matter of work and wages, where do we stand when compared to other nations? Is not unemployment fast becoming a chronic disease in the economic structure of our Land? Consider the scramble for jobs that is going on, on communal basis. Does it not tell us the sad tale that we are utterly unable to create fresh openings and therefore we contend for the division and distribution of the old ones? The craze for short hours, the Ca'canny policy of the workmen, the activities of the trades associations based on the fallacy of the work fund, and the push of the younger generation for ousting the older ones who can still carry on, in order to step into their shoes—all these, do they not betray that in the provision of employment we are falling back instead of forging ahead? As a nation what can be wanting to us? Is it grit? Is it stamina? Is it ability to undergo the requisite sacrifice? or willingness to shoulder responsibilities? Whatever be the comparative estimate of the Indian workman, given the normal conditions, he works the hardest, sticks the longest, and rests content with the least. "Give me a fulcrum," said Archimedes, "and I shall lift the whole world." Give us opportunity, and we shall lift the unemployed from the depths of poverty and degeneration to prosperity and progress. An English boy going out of the school has a thousand opportunities confronting him, whereas his Indian counterpart scarcely has fifty and that fifty already exploited! Give him the opportunity, and you will rescue him from unemployment. All advice without opportunity is a mere moonshine. It is cruel to speak to the unemployed without giving him the opportunity to work. It is like the dinner in the Æsop's fables given by the fox to the crane.

Opportunity is Service.

What is opportunity then? Opportunity is service. It is service to our Nation; service to the world at large—better service, or more efficient service, or new service. And service in the dictionary of the economists is earning a living. Are we able today to provide this opportunity to the unemployed? Eighty-five years ago we did it. We had no mobile capital to invest, neither had we skilled labour, nor the power of organization and adventurous enterprise. A great opportunity occurred. British capital and British experience standing by us, we seized

it by the forelock. Since then we have stuck to it; we developed it; we exploited it till it turned into a national asset worth 765 crores of Rupees. To-day we are giving work to 900,000 men, and pay a wages bill of 40 crores of Rupees per annum. Our railway industry is one of the greatest agencies in our employment scheme. About 580,000 Hindus, 182,000 Muslims, 15,000 Anglo-Indians, 5,000 Europeans and 27,000 other minorities including the Indian Christians, earn their living from it. This is service. This is opportunity.

On the threshold of a Great Achievement.

Today India stands on the threshold of Humanity's great achievement—an achievement that will make her more happy, more prosperous, more contented—an achievement that will give a new orientation to her political thought, religious culture, social outlook and economic structure recasting her trade, commerce and industry. It is in the light of this achievement that the future of India looms large with great employment possibilities. Will India seize the opportunity before it is too late? Will she make use of it with a forward policy, with a policy undaunted by the risk involved and unfettered by narrow political considerations? If she does, she would have travelled a milestone on the progressive solution of her unemployment problem.

The Conquest of the Air.

The world has always looked upon heroic feats of great men and brave women with honour and admiration. Braving perils, daring deaths, grappling in epic struggles with the mighty powers of nature—conquering the unconquered heights to tread the virgin snow, riding the storm-tossed oceans to discover the ends of the earth, probing the unexplored realms of disease to immolate oneself on the altar of human welfare, and to rush through the raging fire and snatch the perishing child to restore it to the bosom of its weeping mother are indeed achievements of which mankind can well be proud of. But all these feats seem to fade into insignificance before that unique and unparallel event in the history of daring and adventure—I mean the conquest of the Air. Just pause for a while and ponder over the consequences involved in it. It has fired anew the smouldering ashes of the world's romantic age and rekindled in the bosom of men and women new visions and larger hopes. It has cut asunder the bond that chained humanity to earth and liberated it to soar into regions more spacious than the world itself. It has evoked the

superb heroism of men who, unflinching in the face of death, rode the uncharted oceans of the sky, piercing into the very vastness of the stratosphere hitherto thought impossible for human endeavour. It has brought into play intrepid men and women who raced over oceans and continents devouring time and space in order that the world may shrink for speedy travel and transport. It has thrown open the impervious forests, the uncrossable deserts, the frozen arctics, the lofty mountain ranges, the unexplored expanse of waters, and the lofty regions hid amidst Himalayan heights which in spite of their great potential wealth and luxuriance have, by the insurmountable handicap of their geographical features, been cut off from the world's progress and advancement.

The Pioneers that created the Great Opportunity.

In 1505, that great genius, Leonardo da Vinci, the artist, engineer and scientist, published the fruits of his researches on flight in a celebrated book long lost and found again, "The Flight of Birds," and exhorted the unbelieving humanity to study the air for flight. Andrea Grimaldi astonished, in the seventies, the people of North Carolina by flying his mechanically propelled heavier-than-air machine. In the beginning of the 19th century, Sir George Cayley, the Father of the British aviation, applied science to the problem of mechanical flight and explained mathematically its fundamental principles. Otto Lilienthal, before he glided to death on the 10th of August 1896, clearly demonstrated the first and foremost requisite of aviation followed today by the great Air-Liners. On December 17th 1903, brothers Wilbur and Orville Wright triumphantly lifted the world's first petrol engine aircraft and left their imperishable name as fathers of the modern aeroplane. Alcock and Smith, Kohl and Williams displayed the utmost of human endurance and dogged perseverance by flying their planes over continental distances without a single hop from start to finish. Lindberg surprised the gaping world by his soul-stirring non-stop solo flight. Donati, Demtri, and Swain soared into the stratosphere nearly touching 50,000 feet ceiling. And last but not least, Amy Johnson, Emilia Eahart, and Jean Batten taught timid men what their brave companions of the fairer sex can achieve. These are creative men and women-pioneers who brought into being opportunities that not only gave India a prominent place on the International air routes but threw open great avenues of services that bid fair to enlarge and improve with time.

The many-sided careers of aviation.

We are but in the first stage of progressive aviation and yet, the rapidity with which in so short a time it has multiplied and expanded its services to humanity makes it unique in the history of man. Day by day, the triumph of the aeronautical engineering ushers in new features and new improvements creating new uses and opening out new professions. The capacity of the aeroplane to move in three dimensions, its ability to rise high above the ground clearing all obstacles to progress, its low capital, operation and maintenance costs, its flexibility in operation, its efficiency in service, its universality in purpose, and matchless speed unsurpassed by any other system of transport—all have given aviation a recognized place in every progressive department of human activity. Just consider some of its chief services and the careers of employment connected with them. In military flying, there are the formation of the Royal Indian Air Force and the Indian auxiliary air forces to the Navy and the Army; in commercial flying making up the public utility services, there are the inland transport companies and the international airways carrying first-class mails, goods and passengers; and in civil flying, the club flying for pleasure and recreation, the instructional flying for schools and colleges, the taxi flying and the private flying, the cinema flying for film production and transport, and the advertisement flying for sky writing, banner floating, and leaflet dropping. Locating fire and checking damages to wood in the forest department; carrying food to the famine-stricken areas and reaching food-supply to people by devastating floods cut off from the society in the relief department; rushing first aid to inaccessible places and dropping serums and toxins in cholera and plague-stricken villages in the medical department; dusting wheat fields and paddy fields against locusts and spraying chemicals over orchards and vegetable gardens to kill pests and cure plant disease in the agricultural department; patrolling frontiers and checking smuggling in the customs department; thief tracing, dacoit raiding, and riot quelling in the police department; reconnoitring, map making, and aerial photographing in the survey departments of revenue, geology and archaeology. Then there are the indirect services connected with aviation such as administrative works, aerodrome management, foremanship, engineering, fitting and rigging, wireless operating, wind and weather charting, signalling and transport controlling. Add to these, that veritable beehive of aircraft industry—aircraft factories with their innumerable ramifications of jobs—What a

vast avenue of employment possibilities await a nation that can seriously take to Aviation!

The suitability of Aviation as a career to our youngmen.

Many careers presented to our youngmen as a relief to their unemployment have fallen flat. It is because they were ill-suited to their taste or unappealing to their sentiments. Any profession offered to them must stand four tests:—Does it accord with their upbringing? Does it satisfy their aspirations? Does it hold out financial prospects? Does it adapt itself to their environments? The temperament of the modern youth does not brook sheep discipline. He wants to exert his individuality. The career of an air-pilot exactly answers these requisites. The air-pilot is his own master. He is under no debasing discipline. He commands the crew, the craft, and the passengers. He is asked to give his own judgement as to the suitability of the weather and the fitness of the craft, and he is called on to exercise his sense of discretion to fly or stay. He has ample field to develope his personality. What are the aspirations of our young man? He hopes to rise in status. He is ambitious to wield responsibility. The air pilot is the captain of his craft. His status in life is equal to that of the captain in the Navy. From the start to the finish he is responsible for the crew, the craft and the passengers. This responsibility weighs heavy upon his shoulders giving corresponding weight to his work and dignity to his position. As to financial aspects, aviation holds out many highly-paid careers. The rewards for its jobs are commensurate with the risk and responsibility involved and the demand for service progressing with the time. The service-flying in the military, as well as, in the departments of the Government is a highly-paid profession retiring with a pension or bonus after twenty-five years' service. Even in private flying a pilot can make up enough to spend his declining days in comfort. A disabled pilot can adapt himself to hundreds of jobs in the ground organization or in the air-craft factory. The adaptability of the career to the environments of the candidate has important bearing on the profession. It ensures it with a sort of steadiness and continuity. It conserves the energy of the workmen that would have been spent on overcoming handicaps for exploiting the natural facilities. It gives genius the chance of research and invention. Study India from this point of view. Located in the centre of the Eastern Hemisphere, commanding the main trade routes of Asia, banked by the bifurcation of the great Himalayan range, nestling in its bosom

long stretches of Deccan, and the vast expanse of the Indo-Gangetic plain, teeming with a large population, busy commercial marts, ancient historic sights, having the basing centres of the three foremost aviation companies that pour into her lap the progressive government, India affords unique environments in the East favouring aviation enterprise. There are other attractions too:—the joys and pleasures of flight; the thrilling emotion begot from the limitless and unrestrained freedom in the air, the expansion of the mental and moral vision engendered by the aerial survey that enables one to view things in their totality, and the consequences of all these and the open-air feature of the profession on the health, vitality, and length of the serviceable age of the air-pilot—these will never fail to appeal to India's young men and women.

A practical scheme of the immediate future. The Re-organization of India's Defence.

The impending re-organization of the entire defence of India due to military necessity in the immediate future brings employment opportunities in aviation within the field of practical schemes. In fairness to our Army it must be said that when the time comes to evaluate the achievements of the makers of modern India those who contributed to the formation, the discipline, and the efficiency of it will have a high place in our country's rôle of honour. Very few countries, and perhaps if you except Japan, none in the East, can claim to have had such a glorious continuity of distinguished commanders in their army traditions—a continuity that runs from Major Stringer Lawrence, the Father of the Indian Army, through a brilliant galaxy of military men famous in the annals of warfare and such as Ochterlony, Nicholson, Havelock, Wellesly, Napier, Campbell and Gough, Lord Roberts of Khandahar and Lord Kitchener of Khartoum down to the present illustrious incumbent, His Excellency General Sir Robert A. Cassels, the Commander-in-Chief. Our Army has proved its worth and mettle in many a battlefield, and its fame has been the terror of many a tribe and nation that had their ambitious eyes on our Frontiers. No one can sufficiently estimate its importance, especially in these days of world chaos when we are compelled to follow a policy that dictates:—If you want peace, prepare for war. It is a national asset whose services are to be measured, not so much in terms of wealth, as of welfare. But we are living in a dynamic world. Together with many other things, and chiefly because of the progress in the aeronautical

engineering, the technique of modern warfare has been rapidly changing in the last decade. In consequence of this, the main responsibility of our country's defence has been gradually shifting to the Air Force. It will be our first line of attack and defence. In view of the latest developments in the Far East, especially with the shifting of the Japanese sphere of influence to be conterminous with our sphere of influence in the regions beyond the Himalayas, there is the urgent military necessity for the formation of the Royal Indian Air Force. It must be equal to any other air force in the East. It must be efficient to defend the bulwarks of the Indian Empire from Aden to Singapore. It must, in combination with the Australian Air Force, be superior to any other air force in the East to defend, if need be, the eastern part of the Brittanic Commonwealth with which India's safety and security is intimately interwoven. Here indeed I find a vast avenue of employment for our Indian airmen.

A Political Expediency.

India is on the eve of a great Federation. Political expediency demands that the burden of the responsibility of defence should be shared by the federated units in proportion to their size and importance. The present proportion of the provincial representation in the Indian Army looked at from this point of view is by no means an ideal one. It must be granted, however, that from the point of view of military efficiency the principle of tapping the best martial resources in India is a sound and unquestionable one. Based on this principle, the Indian Army stands as follows:—Indian Troops, 158,000; British Troops 60,000. The Indian Troops, province-wise are classified as follows:—The Punjab and the North-Western Frontier Province have 66 per cent of the whole Indian personnel; the United Provinces have 11 per cent; and the rest of India 23 per cent; or the Punjab has 86,000; N.-W. F. P. 5,600; Nepal, 19,000; U. P. 16,500; Bombay, 7,000; Madras, 4,000; and Bengal, Nil. Can we restore the provincial balance without tampering with the efficiency of this composition? The answer is weight it by the formation of the Royal Indian Air Force. The requisites of the air force are, not so much the possession of military tradition and martial qualities, as of having the skill and genius to handle a complicated mechanism, the sense and discretion of calm judgement, tact and prudence, sagacity and intellectual acumen, and other qualities that are the outcome of a specialized and general education. If this be so, granting physical fitness, the

source of the personnel of the R. I. A. F. is the educated youngmen of India. Therefore, on the score of political expediency also, the re-adjustment of India's defence opens out the careers in Aviation to our educated youngmen.

A Ten-Year Plan. 1. Military Programme.

From these considerations, it seems that the practical solution of the problem of unemployment, especially that pertaining to the educated unemployed of our country lies in an intense aerial programme. I, therefore, suggest A Ten-Year Plan with a fourfold programme or departmental scheme, Military, Commercial, University and Civil. The Military Programme will consist in the establishment of the Royal Indian Air Force. The members of this force will be recruited in India by a general knowledge and physical fitness test, and trained and commissioned in India. An Air Force College, after the manner of the Cranwell College, will also be established to train men for the R. I. A. F. The candidates will undergo a two-year course learning Major Smith Barry's, or what is called the Gasport system in aviation. In the first year, they will be taught Applied Mathematics, including Mechanics and Draftsmanship, Elementary Physics, Physical Training and Drill, the Theory of Flight and Navigation, and Practical Flying. In the second year, the theory and the practice of Aeronautical Engineering, Rigging and Constructional Work, Tactics and Strategy of Warfare, Wireless and Meteorology and an advanced course in Practical Flying and Navigation. The whole Military Programme will be in charge and under the control of the experienced officers and men of the R. F. A. using their crafts.

2. Commercial Programme. 3. University Programme. 4. Civil Programme.

The Commercial Programme will take the form of an extension of the Public Utility Service. The Indian air transport companies being asked to multiply and extend their services to the principal towns of India. The International Air Lines will be asked to employ Indian personnel on their Indian routes. The second part of this programme will be to invite two leading British Air Craft Manufacturing Companies under guaranteed system to establish their factories, one in Northern India and the other in Southern India, to manufacture military and commercial crafts respectively under the control of the Government of India. After a reasonable period of time the Government should have

the right of buying the Companies. The University Programme will take the shape of the establishment of Indian University Air Squadrons like the B. U. A. S. at Oxford, Cambridge, and King's College, London. A start will be made by the senior Universities in the beginning, such as Calcutta, Madras, Bombay, and the fruits of their experience be gradually extended to other universities one in each province. These University Air Squadrons will be first managed by the R. F. A. and after the formation of the R. I. A. F. handed over to them. The Public Service Commissions will recruit from the University Squadrons the personnel for the India Survey and other departments of the Government; and the Public Utility Services too will take their pilots from the University Squadrons. As to the Civil Programme, it is very gratifying to note that under the able guidance of the India Directorate of Civil Aviation a very good start has been made and no mean progress achieved. Great things are in store for Civil Aviation in India. The club flying Scheme of Sir Sefton and Sir David Sesson will have to be extended to all the principal towns, the membership of the flying and the non-flying, increased; the flying and the instructional charges, brought low; light machines of the types of the Flying Flea, the Aeronca J. A. P., and the Drone B. A. C., manufactured in our proposed factories, brought within the means of many; encouragement and facilities extended to other services of aviation, such as, Cinema flying, Taxi flying, Private flying, and Advertisement flying; and lastly a Guild for the Indian airmen, established.

Then Finance.

And who is to bell the cat, the cat of finance? I must confess that I am treading a very dangerous ground. But, if we really mean a thing, we must go about it seriously. We cannot reap without sowing. The credit of our Nation is very high, and our unproductive public debts amount to only 196·31 crores of Rupees. We have to float a national debt to give a good start to the scheme. The Military, the R. A. F., and the R. I. A. F., the University Squadrons, the aircraft factories and the Air Force College—all need large non-recurring grants to get going. The recurring grants for their up-keep will have to be meted out with a defence tax realized as a surcharge on incomes and the savings resulting out of the economy schemes in the various departments. Should the Nation sanction my Scheme, as to the ways and means, we may safely trust in the approved ingenuity and the resourcefulness of our Hon'ble Finance Minister whose talent, I am sure,

will never fail so great a cause—the cause of India's defence and her educated unemployed.

Authorities Consulted:—Sqdn. Lead. C. Y. Burge—*The British Empire Air Manual*; General Sir George Barrows—*The Army* (*Indian*); Sir Clement Hindley—*The Railways* (*Indian*); The India Directorate of Civil Aviation—*The Reports*; Major Oliver Stewart—*Flying as a career;* Capt. J. L. Pritchard—*the Flight that changed the World*; Sir John Hammerton—*War in the Air;* Maj. C. C. Turner—*Four Centuries of Experiment*; Sir Archibald Williams—*The Conquest of the Air*; Dragon —*The Future of Aviation*; Turner—*Aerial Navigation Today*; Captain Summer—*Air Craft Progress*; Bret—*History of British Aviation*; etc. etc.

INDIAN SUGAR INDUSTRY AND ITS PRESENT PROBLEMS

BY

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Industrial problems are always complicated—connected as they are with the political, social and economic conditions of a country. In India the problem is even more complicated due to domination of a foreign power whose economic interests are not always the same as that of this country. Our industrial development has mostly been subject to the approval of the Industrialists of Great Britain. The adoption of a policy of protection to the industries was thus considerably delayed due to these causes and even now protection is always half-hearted and uncertain. The case of the sugar industry in this country is no exception to the general rule. In the 17th and the 18th centuries India, the home of sugar production, not only supplied all her demand for sugar but also exported sugar to England. During a period of 150 years, Indian sugar industry was practically killed and our imports for this commodity in the post-war period averaged to 1,39,59,000 maunds valued at Rs. 19,71,00,000.

Though the industry enjoyed all the natural advantages in the country necessary for discriminate protection, it was not protected till 1931, when for the first time a protective duty of Rs. 7/4/- per cwt. or about Rs. 5/4/- per maund was imposed. The industry now began to make a rapid progress and within a period of six years 105 new factories were opened and the production of factory sugar in this country increased by 1,81,40,787 maunds, reducing the imports by 1,30,49,613 maunds. It provides employment for 2,500 graduates, over 1,00,000 industrial labourers and 2 crores of cultivators, leaving out of account number of middle men ,working in different capacities. More than 30 crores of Indian capital has already been invested in this industry.

The industry has been a boon to the cultivators who were groaning under the heavy loss due to falling agricultural prices. Calculating at the average rate of annas -/4/- per maund the

total income to the agriculturists from cane crop has been 48 crores of rupees per year. The industry has special importance for the U. P. and Bihar. 51·3 per cent of the total area under cane in this country lies in the U. P. and 9·9 per cent in Bihar. Out of a total of 137 factories, 67 are located in the U. P. and 35 in Bihar.

All this has been done without any loss to the consumers who had to make practically no sacrifice consequent upon a policy of protection. Consumers were paying about Rs. 10/- per maund of sugar before the protection period for which they are now paying only Rs. 6/-.

The Government, no doubt, had to suffer a loss in customs revenues, though it has been partially made up by the excise duty. The yield from duty is about two crores of rupees a year whereas the customs duty on sugar yielded about six crores in 1931-32. The increased importance of the cane crop led to an improvement both in the quantity and the quality of the yield of sugarcane. The area under improved varieties of cane has considerably been improving. The improvement in the manufacturing efficiency is reflected by a high recovery percentage which has gone up from 8·9 in 1931-32 to 9·5 in 1936-37. The maximum recovery percentage being 11·34. These in short have been the various advantages from a policy of protecting the sugar industry.

The various problems of the industry should now be studied from the point of view of the agriculturists, the manufacturers, the industrial labourers, the consumers and the future development of the industry.

The Agriculturists.

One of the most important argument for the protection of sugar industry was its effect on Indian agriculture. Sugarcane is the most important money crop in India, particularly in the United Provinces and Bihar. It has now occupied the foremost position in the rotation of crops in the U. P. and Bihar. The average cost of sugarcane was estimated by the Tariff Board at annas eight per maund in 1931-32. But immediately after the imposition of the protective duty this rate was not paid, and that for two reasons: The first was the over-production of cane and the second the exploitation of the cultivators by the capitalist factory-owners. The cultivators, under the impression that demand for cane would now increase, over-produced sugarcane so much so that the total supply of cane could not be crushed in one year. The area under cane increased by 44 per cent and the yield due to improvement nearly doubled. High prices

naturally could not be maintained. Secondly, the millowners in conspiracy with the cane contractors adopted all sorts of corrupt practices to deprive the cultivators of their just dues. At times prices as low as 0-2-6 a maund were paid in 1933, the second year of protection, though the factory-owners themselves were declaring dividends as high as 30 to 35 per cent. After a Government inquiry the sugarcane rules were passed in 1934 which fixed—(a) A minimum price for cane by linking the price of cane to the price of sugar in the province. The minimum price of cane was to be -/5/- per maund if the sugar price was Rs. 8/8/- per maund. The price could increase or decrease with a rise or fall in the price of sugar at the rate of -/-/3 per -/8/- in the price of sugar. (b) Appointment of sugar inspectors to check fradulent practices. (c) Abolition of the system of cane contractors. (d) Prohibition of deductions from cane price for clipping etc.

With the imposition of the increased excise duty of Rs. 1/8/- a maund in February 1936, the factory-owners made another effort to reduce the cane prices. This time they held out a threat to stop production due to high excise duty. Huge quantities of cane were standing on the fields, now practically with no purchasers, at a time when the deterioration in the quality of cane had begun and the succrose percentage was going down. There was no alternative with the Government but to suspend the cane rules and to announce a reduction in price to -/3/3 a maund which did not even cover the expenses of production of cane. A part of the burden of the excise duty was thus shifted on to the cultivators. The Tariff Board appointed in 1937 is again considering this question of fixing a minimum price for cane. According to my calculations the cost of production of cane including overhead and transport charges in the western and the eastern districts comes to annas -/4/6 and -/4/- respectively and allowing for a margin of -/-/6 for profits the minimum price for cane should be fixed at -/5/- per maund. This minimum price should not depend upon market price for sugar. The ruinous competition and a policy of underselling the rival sugar factories have resulted in forcing the prices down for which the cultivators are in no case responsible. There seems to be no reason why the cultivators should be penalised for the mistakes of the sugar manufacturers. Every reduction in price means a corresponding reduction in cane prices and the manufacturers get a relief to that extent. If a fall in cane prices is not allowed the competition and reduction in price would be checked to some extent. It may help the refineries or the khandsaris.

Manufacturers.

The case of the manufacturers is equally important. They have made considerable economies in the cost of production, which is a great credit to them, and have reduced it to a figure which is considerably below even the anticipated cost of production in 1946. In 1931-32 the Sugar Tariff Board calculated the cost of production of sugar per maund, leaving out of account the price realised for molasses, at Rs. 9/-/5. They anticipated that this figure would go down to Rs. 8/3/2 in 1946 but in only half the time of protection the figure has come down to Rs. 5/- leaving the excise duty.

For the first two years of protection the manufacturers were well off and declared good dividends. Their only problem was a profitable disposal of molasses. In 1931-32 the Tariff Board calculated the cost of molasses at Rs. 1/8/- per maund whereas in the protection period molasses hardly realised even one anna per maund. Some of the factories could find no purchaser at all even for a free delivery of molasses ex-factory and they had to let loose the molasses in the adjoining rivers, streams or open fields. In Java and other sugar-manufacturing countries molasses are put to better use and fetch high price which reduces the net cost of cultivation for sugar. Manufacture of petrol or use of molasses as a road surfacing material for which successful experiments have been made at Mysore and Cawnpore are other alternative uses which are more profitable. It is only a relief from the by-products that can make the industry paying even in the face of world competition.

In 1934-35 an excise duty of Rs. 1/- and -/10/- per maund was imposed on Indian factory and khandsari sugars respectively. The duty could easily have been paid as there was already a countervailing customs duty of Rs. 1/13/- a cwt. due to general revenue surcharge imposed in October, 1931. But the overproduction of sugar due to high sugar profits led to keen internal competition which forced the prices down. The low sugar prices thus left a very small margin for some factories for paying the excise duty. The khandsaris or indigenous sugar manufacturers had to give up production as a result of the excise duty. The refineries were running at a loss.

Next year the duty was raised to Rs. 1/8/- a maund and now it really became a problem for most of the factories to balance their accounts after showing profits and making an allowance for the full excise duty. The old and big factories could meet the loss out of their reserves or out of the savings due to economies of the large-scale production but the small or new factories in the

U. P. and Bihar could not pay the duty. Some of the mills, therefore, had to suspend production while others piled huge losses. The khandsaris and the refineries had to give up production all together.

The new factories in the U. P. and Bihar had to face double competition, one with the old and big factories within their territory and the second from the newly started sugar factories in the south and east of India. The new mills in Madras and Bengal threaten the U. P. mills with the loss of market in those distant places where the U. P. sugar has to pay a heavy freight for long carriage. New factories under construction in Mysore, Hyderabad and Bhopal states are a further and greater source of anxiety to the North-Indian factories.

There is yet another danger to the whole of the British Indian industry unless terminal taxes or octroi duties are imposed on sugar imported from Indian states, where the excise duty imposed by the Government of India would be inoperative. It is very likely that British Indian capital may be diverted to Indian states to evade the excise duty. Such a thing happened in the case of cotton mills which were started at Indore, Gwalior, Baroda and other states after the passing of the Indian Factories Act in 1913.

High cost of transport is another impediment. The means of transport in the countryside are responsible for unnecessarily increasing the cost of cane to the factories while high railway freight raised the price of Indian sugar at ports and near about so high that Java sugar, after keeping an allowance for its superior quality, can yet find a market in India.

The problems of the manufacturers, therefore, are proper use of by-products, excise duty and over-production and consequent competition including marketing. The first two are beyond their control and to remedy the third the usual process of competition leading to cooperation is being followed. Finding no immediate possibility of opening new markets within the country or outside the sugar millowners have recently organised a syndicate which would act as the common sales agency for all factories. They propose to control and eliminate competition and thus force up the prices. It may now be seen that on a threat of suspension of production they shifted a part of the incidence of excise duty on the cultivators in the form of lower cane price and now they are making an effort to pass off the remaining part of the duty to the consumers in the form of high prices.

The case of sugar factory labour has so far been totally ignored. There is the minimum sugarcane price for the cultivators, the protective duty for the manufacturers, the excise

duty to safeguard Government revenues but there is no provision for the industrial labourers. The employment in sugar factories is only seasonal and the rates of wages low. While the highly paid staff is given half pay during the off season, the unskilled and low paid manual labourers are asked to go without any provision for the forced idleness. Some legislation to improve the condition of sugar factory labour is necessary to ensure a better living and high efficiency for this important factor of production. Substitution of foreign labour by Indian skilled labourers, who are now available at a much lower salary, is another point deserving consideration.

In the interest of the consumers the establishment of monopolies or syndicate under the control of the millowners should be opposed. They should get full benefit of reduction in prices and a few capitalists should not be allowed to feed fat on the sacrifices of the millions of consumers.

The industry requires a general control in all directions. A policy of *laissez faire* would not do. There should be a planned organisation of the industry. The minimum price of cane should be fixed at annas five per maund, the industrial labour should be guaranteed a living wage, molasses should be better utilised and there should be price fixation even for sugar to check exploitation of the consumers and to put a stop to the present internal competition. The organisation of marketing is the next thing needed to avoid waste of money in competition and duplication of distributive agencies. The establishment of a central marketing board or a sugar syndicate is no doubt necessary but it should not be allowed to be purely an organisation of the millowners to exploit the consumers. The board should be controlled by Government and should have representatives of the millowners, the agriculturists and the consumers. The syndicate should fix a price for the purchase of sugar manufactured in India, say, at Rs. 6/8/- and should sell it at a price one rupee per maund higher than the purchase price. Estimating the present Indian consumption of sugar at 2,70,00,000 maunds a year it would result in a profit of Rs. 270 lakhs to the syndicate. Keeping 10 lakhs as syndicate expenses there would be a surplus of Rs. 2 crores and 60 lakhs which can be utilised for meeting the loss in exports. The present surplus production of sugar in India is 50,000 tons or 17,50,000 maunds. Assuming that the industry makes further progress and the present demand for sugar shrinks due to the raising of sugar prices by rupee one per maund, the surplus may increase to 50,00,000 maunds a year (three times the present surplus). At this figure the syndicate can afford to

dump sugar in other countries by reducing export price to the extent of rupees five per maund and still keep a reserve of another ten lakhs for contingencies. The cost of production including Government excise duty for Indian sugar at present is Rs. 6/8/- per maund. Adding Re. 1/- per maund for the freight, India can sell sugar in other countries at Rs. 2/8/- per maund, or even less if the quantity exported is less than 50,00,000 maunds. Further if the Government can be persuaded to exempt all sugar exported from the country from paying the excise duty, India can sell sugar in other countries at competitive rates even without raising the internal prices very high. At the present calculation the selling price can be as low as Re. 1/- per maund.

The nearest market for Indian sugar can be found in trans-border countries of Afghanistan, Nepal, Burma and Ceylon. An overseas market may be the United Kingdom which is at present importing non-empire sugar. If the empire preference is given to Indian sugar in the U. K. it may be possible for us to have a big export trade in sugar with England even without asking the Government of India to remit the excise duty on exported sugar.

The future improvements in the yield and quality of cane, the utilisation of molasses for petrol manufacture, reduction of freight rates on cane and sugar and the improvement in manufacturing efficiency may very soon enable the industry to stand on its own legs and the present State aid to the industry may not be needed for all time to come.

PROSPERITY AND DEPRESSION[1]

BY

BENOY KUMAR SARKAR.

Two summaries and bibliographical surveys of contemporary economic thought have been recently contributed by two members of the Harvard University staff. H. S. Ellis's *German Monetary Theory 1905—1933*, published in 1934, has rendered accessible to the English-speaking world a vast mass of economic literature on currency questions embodied as they are in the books, brochures and articles published in German. A work of a more general nature is G. von Haberler's *Prosperity and Depression.* This theoretical analysis of cyclical movements has been initiated and published by the League of Nations (1937). Both these works should prove to be of immense value in India and elsewhere as handbooks to the specialists as well as to the members of the teaching profession in economics.

The discussions on the *Wirtschafts konjunktur*, economic crisis and trade cycle constitute a pluralistic world of theories and policies. A part of this pluralism is due more to the diversity of terminological categories than that of the factual contents. But as in almost every other economic phenomenon, nay, human problem, in these investigations into prosperity and depression also it is possible to detect the uniformities, harmonies, agreements, and unities as well. And one of the solid contributions of Haberler is the emphasis on some of the common denominators in the veritable jungle of analyses and syntheses. The present work may be said to have introduced some sort of rationalization into the science of economic fluctuations.

The monistic monetary interpretation of the trade cycle has been described by summarising Hawtrey's *Good and Bad Trade* (1913), *Currency and Credit* (1919), *Monetary Reconstruction* (1923), *Trade and Credit* (1928), *Trade Depression and the Way Out* (1931), *The Art of Central Banking* (1932) and *The Gold Standard in Theory and Practice.*

Over-investment theories have been exhibited in three groups. The first group comprises the modified as contrasted with the monistic, monetary interpretations. Hayek's *Monetary Theory*

1 By G. von Haberler, League of Nations, Geneva, 1937, xvi 363 pages, Price 7*s*. 6*d*.

and the Trade Cycle (1913), which is the English translation of the author's original German *Gold theorie und Konjunkturtheorie* (Vienna 1929), and *Prices and Production* (1931), Machlup's *Börsenkredit, Industrie kredit und Kapitalbildung* (Vienna 1931), Mises's *Theory of Money and Credit* (1934), translated into English from *Geldwertstabilisierung und Konjunkturpolitik* (Jena 1928), Röpke's *Crises and Cycles* (1936), translated likewise from the German original, and Strigl's *Kapital und Produktion* (Vienna 1934) are the works chiefly discussed in this group which is described as that of "monetary over-investment theories." Robbins's *Great Depression* (1934) is a non-German work considered in this context. The Swedish author, Wicksell, is taken to have provided the theoretical foundation of this school in his *Interest and Prices* (1936), translated from the German *Geldzins und Güterpreise* (Jena 1898). It is pointed out at the same time that Wicksell himself in his interpretation of business cycle belongs to the entirely "non-monetary" over-investment theory. The analysis of the maladjustment in the structure of production brought about by the credit expansion during the prosperity phase of the cycle is one valuable contribution of the monetary over-investment theory while another contribution is to be seen in the explanation of the depression as consequent on that maladjustment.

There is a group of over-investment theories which does not attach any creative or causative importance to monetary considerations. These theories are described on the strength of Spiethoff's German articles, "Vorbemerkungen zu einer Theorie der Ueberproduktion" (Preliminary Observations on a Theory of Overproduction) in *Schmollers Jahrbuch* (1902) and "Krisen" (Crises) in *Handwörterbuch der Staatswissenschaften* (1925), the Swedish economist Cassel's *Theory of Social Economy*, Vol. II, (translated from the German, 1932), the Russian economist Tugan-Baranowski's *Les Crises industrielles en Angleterre* (Industrial Crises in England), 1913, translated into French from the Russian original.

Spiethoff's work is not available in English as yet and since his discussion conveys some fruitful German ideas not until recently well known in the English-speaking world let us have a specimen from his paper entitled *Krisen*. According to Spiethoff there are four categories of goods: (1) goods for current consumption (*e.g.*, food, clothing etc.), (2) durable and semi-durable consumption goods (*e.g.*, residential buildings, water supply, electric light installations, gas plants, and other public utilities); furniture and motor cars occupy an intermediate

position between (1) and (2); (3) durable capital goods (fixed capital), *e.g.*, mines, iron works, brick and cement factories, textile plants, machine-factories, railroads, power-plants, etc.; and (4) materials required for the construction of durable goods (goods for indirect or reproductive consumption), *e.g.*, iron, steel, cement, lumber, bricks.

A boom is characterized, according to Spiethoff, by a disproportion between production of these four categories of goods. The situation is that of a simultaneous shortage in one direction and plenty in another. Overproduction occurs in durable capital foods (3) and in durable consumption goods (2) which brings with it overproduction in (4), while shortage is to be seen in labour and consumers' goods (1).

It should not be difficult to go with Spiethoff in regard to the question of this discrepancy bearing on the post-war depression. The present reviewer has, for instance, tried to show in his *Applied Economics Vol. I* (Calcutta 1931), chapter on the "world-crisis in its bearings on the regions of the second and the first industrial revolutions" that overproduction and over-employment in the *Produktionsmittel* (instruments of production) industries were the legacies of the Great War specially in the countries of adult industrialism and that cumulative effect in this direction was produced by rationalization. And it has been likewise pointed out that, as the present depression teaches, the first industrial revolution of the predominantly agricultural or industrially young regions and the second industrial revolution of the industrial adults constitute one complex in so far as the economic rejuvenation of the entire world is concerned.

The non-monetary over-investment theories attach special value to inventions, discoveries, technological changes, the opening of new markets etc. In this connection the chief document for this group is Schumpeter's *Theory of Economic Development* (Cambridge, Mass., 1934), translated from the original German of 1911.

The third group of over-investment theories assigns a leading rôle to changes in the demand for consumers' goods. Slight changes in the demand for consumers' goods are said to produce much more violent variations in the demand for producers' goods. The bibliography for this group is Aftalion's *Les Crises périodiques de surproduction* (Periodic Crises of Overproduction), Paris, 1913, Bickerdike's "A Non-monetary Cause of Fluctuations in Employment" (*Economic Journal*, London 1914), Bouniatian's *Les Crises Economiques* (Paris 1922), Carver, "A Suggestion for a Theory of Industrial Depressions" (*Quarterly Journal of*

Economics, Harvard, 1903), the Italian economist Fanno's paper in the *Beiträge zur Geldtheorie* (Contributions to Monetary Theory) edited by Hayek. Some of the recent publications are listed below: J. M. Clark: "Business Acceleration and the Law of Demand" (*Journal of Political Economy*, Chicago, 1917), *Economics of Overhead Costs* (Cambridge, Mass, 1923), Kuznets's "Relations between Capital Goods and Finished Products in the Business Cycle" (*Economic Essays in honour of W. C. Mitchell*) New York 1935, Pigou's *Industrial Fluctuations* (1927) and Harrod's *Trade Cycle* (Oxford, 1936). The principle that "derived demand" fluctuates more violently or is magnified and accelerated can be illustrated by the fact, for instance, that if the demand for shoes rise, say, from 100 to 110, that for machines rises from 50 to 100, or if the demand for apartments rises from 100 to 110, that for houses rise from 80 to 160. In Mitchell's *Business Cycles* (1913), Robertson's *A Study of Industrial Fluctuation* (1915) and Spiethoff's *Krisen* (1925) this principle has been taken to be an intensifying factor in the cycles.

There is a group of theories, rather of a subsidiary although not unimportant character, which explain crises by (1) changes in cost, *e.g.*, in Mitchell's *Business Cycles* (1913), (2) horizontal maladjustments in the structure of production, *i.e.*, an overdevelopment of a particular branch of industry, *e.g.*, in Pigou's *Industrial Fluctuations* (1927), Beveridge's *Unemployment* (London 1930), Mitchell's "Competitive Illusion as a Cause of Business Cycles" (*Quarterly Journal of Economics*, Harvard, 1924), and (3) overindebtedness, as in Irving Fisher's "Debt-Deflation Theory of Great Depressions" (*Econometrica*, 1933) and *Booms and Depressions* (London 1933).

The theories of underconsumption, understood as oversaving, and implying that too large a proportion of current income is being saved and too small a proportion spent on consumers' goods, are described on the strength of Hobson's *Industrial System* (London 1909), *Economics of Unemployment* (1922) and *Rationalisation and Unemployment* (1930), Foster and Catchings's *Money* (Boston, 1923), *Profits* (Boston, 1925) and *Road to Plenty* (Boston 1928), Lederer's "Konjunktur und Krisen" (Conjuncture and Crises) in his *Grundriss der Sozialökonomie* (Tübingen 1925), Aftalion's *Les Crises périodiques de surproduction* (Paris 1913) and "Theory of Economic Cycles based on the Capitalistic Technique of Production" (*Review of Economic Statistics*, Harvard, 1927). A variant of the underconsumption theories is to be found in the idea that the failure of wages to rise sufficiently is the cause of the excesses of the boom. The

authorities for this concept are Lederer's "Conjuncture and Crises," Preiser's *Grundzüge der Konjunkturtheorie* (Principles of Conjuncture Theory, 1933) and A.D. Gayer's *Monetary Policy and Economic Stabilization* (New York, 1935).

In regard to the group of psychological theories the authorities, as well known, are Lavington's *Trade Cycle* (London, 1922), Pigou's *Industrial Fluctuations* (London, 1927), and Keynes's *General Theory of Employment, Interest and Money* (London, 1936). It is to be observed that expectations, errors of optimism, errors of pessimism etc., have a place in all the other groups of theories.

The bibliography of the harvest theories is equally well-known. In W. S. Jevons's *Solar Period and Price of Corn* (London, 1875), *Periodicity of Commercial Crises and its Physical Explanation* (London, 1878), and *Commercial Crises and Sun-spots* (London, 1879), H. S. Jevons's *Sun's Heat and Trade Activity* (London, 1910) and H. L. Moore's *Economic Cycles* (New York, 1924) and *Generating Economic Cycles* (New York, 1923), the readers are aware that the chain of causation runs from cosmic influences to weather conditions, from weather conditions to harvests, and from harvests to general business. The logic is somewhat similar to that in Bagehot's *Physics and Politics*. On the other hand, the rôle of agricultural factors is studied although no agricultural cycle or harvest periodicity is established by Pigou, Robertson and Spiethoff. Besides, according to the American economists Hansen ("The Business Cycle in its Relation to Agriculture" in the *Journal of Farm Economics*, 1932) and J. M. Clark (*Strategic Factors in Business Cycles*, 1934) the cyclical fluctuation of business is not caused by fluctuations in agricultural output. It is clearly brought out that there can be no "agriculture theory" of the cycle in the sense of an alternative to, say, the monetary theory or the over-investment theory any more than there can be an "invention theory" or an "earthquake theory".

Haberler is rightly emphatic that each cycle is an historical individual because each is embedded in a socio-economic structure of its own. In spite of the diversities of what may be called the Gestalt or form-complex of cycles Haberler is convinced that it is possible to construct a general theory of universal application such as will explain as much the cycles of the first half of the nineteenth century as those of the present, as much the cycles of industrial adults in Eur-America as those of the industrial youngsters in Eastern Europe, Asia and Latin America. It is this general theory that he popularizes by discovering the great

measure of agreement between the theories enumerated above. The monetary and the over-investment theories have demanded, as they should, his greatest attention. It should be observed, further, that he has excluded from his consideration the "long waves" of twenty to thirty years. In his estimation it is the "short cycles" of three to twelve years that are the trade or business cycles proper.

The diverse theories have been made to yield a more or less synthetic interpretation of the following four phases of every cycle thus considered:

1. The upswing (prosperity phase, expansion).
2. The downspring (depression phase, contraction).
3. The upper turning-point, *i.e.*, the turn from prosperity to depression (down-turn, crisis in the formal sense).
4. The lower turning-point, *i.e.*, the turn from depression to prosperity (up-turn, revival).

The treatment, eclectic as it naturally is, has served to make strange bed fellows of theorists who believed that they had nothing common between themselves.

The summaries are perspicuous and clear and quite meaty and substantial although even short. A very note-worthy feature consists in the fact that the summaries were revised by the authors whose views have been reported by Haberler.

The international aspects of business cycles have demanded the author's attention. The imperfect mobility of goods as engendered by transport costs and the imperfect mobility of capital due to the localization of investment, credit and banking are the two important factors in this regard that have been carefully dealt with. Equally substantial is the consideration of the diverse national currencies in their bearings on cycles.

Exactly what considerations are at the bottom of Haberler's exclusion of certain previous authors from his analysis it is difficult to surmise. There is no doubt that he has tried to be international in outlook and to bring in the diversity of schools in a systematic manner. Yet it is easy to observe that certain prominent countries have been overlooked or inadequately examined. It is questionable if we can justify some of these exclusions on the simple hypothesis that the publication was not intended to be exhaustive or comprehensive.

Some use has been made of the French economist Aftalion's *Les Crises périodiques de surproduction* (Periodical Crises of Overproduction), 1913. Bouniation's *Les Crises Economiques*

(Economic Crises) 1922, has also been mentioned. But, on the whole, Haberler's work may be regarded as rather non-French in ideology. This is somewhat inexplicable in view of the fact that the study arose in the atmosphere of the League of Nations where French thought is not at discount. The relatively un-French atmosphere of this publication is regrettable because French investigations into the crises theory are quite substantial and marked by originality. A work like Baudin's *La Monnaie et la Formation des Prix* (Money and the Formation of Prices) Vol. I (1926), 632 pages, deals with the entire problem in an exceedingly detailed manner (pp. 520—574). The bibliography of this French study is in many respects as voluminous and comprehensive as that of Haberler's special treatise, although, of course, the viewpoints are different. At one point Baudin observed that "Anglo-Saxon writers accuse French economists of studying money in a closed vase." But they themselves, says he, have exaggerated in the opposite direction and have served to render of "money the pivot of entire economics." His standpoint is indicated as follows: "We are not going to follow on this path, but we should however discover the man behind the money. Just as in reality there is no general level of prices so there is no homogeneous human block as purchaser of goods and services."

It is an abuse of language, says Baudin, to describe the period of expansion as one of prosperity and the other as that of depression. In his judgment the alleged depression should really be an era of joy for the consumer on account of the diminution of the cost of living. It should also be an *ère de progrès* for the producer because of the improvements introduced in technique and organization by the business managers anxious to survive.

According to Baudin the relative shortage of gold cannot be invoked as a cause because, for instance, the crisis of 1929 was born in the U. S. A., a region where gold had been accumulating since 1929. Similarly in Germany it was during the period of depression (1890—95) that the stock of gold was increasing rather than during that of prosperity (1895—1900).

Nor can the issue of notes be described as a cause, says Baudin. In England the crisis of 1847 came after the Bank Charter Act of 1844 which was calculated to restrict the note-circulation. On the other hand, neither in England nor in France was the expansion of credit in 1847 on account of large imports of cereals or in 1864 on account of the rise in the price of cotton did follow by any crisis. In the U. S. A., bank failures occurred

chiefly in 1931 showing that it was an effect and not the cause of the crisis.

The purely monetary theories are of course rejected by Baudin *in toto.* He accepts a phrase of the Italian economist Loria's "La Superstition monétaire" (The Monetary Superstition) published in the *Revue Economique Internationale* (1933) to say that the investigations have to be carried into the most profound strata of the relations between production and distribution (p. 559).

A few French contributions to the theory of cycles may be listed here. Juglar's *Des Crises commerciales et de leur retour périodique en France, en Angleterre et aux Etats-Unis* (On commercial crises and on their periodical return in France, England and the U. S. A.) was published in the 80's of the last century. Among the post-war and recent works may be mentioned Lescure's *Des Crises générales et périodiques de surproduction* (On General and Periodical Crises of Overproduction), 4th edition, 1932, Eisler's *La Monnaie, cause et remède de la crise économique mondiale* (Money as Cause and Remedy of the World-economic Crisis), 1932, Simiand's *Les Fluctuations économiques à longue période et la crise mondiale* (Economic Fluctuations of Long Period and the World Crisis), 1932, Bouniatian's *Credit et Conjoncture*, 1933 Ansiaux's *L'Inflation du credit et la prévention des crises* (Credit Inflation and the Prevention of Crises), 1934 and Baudin's *La Monnaie et la Formation des Prix* (Money and the Formation of Prices), Vol. I (1936). This last may not have been seen by Haberler as his manuscript had perhaps been ready for the press previous to the publication of this French treatise. But Baudin's *Le Credit* was published in 1934. In any case his strong views had been well-known since his paper on "Les Facteurs de dépression d'après les banquiers anglais" (Factors of Depression according to British Bankers) published in the *Revue d'Economie Politique* of January 1931. Another paper of Baudin's mentionable in this connection is "La Crise et le pouvoir d' achat" (Crisis and the Purchasing Power) in *Revue des Deux-Mondes* for May 1936.

In Haberler's study Italian thought is conspicuous by its absence. As a psychological interpreter of cycles Pareto's *Cours d'Economie Politique* (1897) and *Manuale di Economia Politica* (1907) did pioneering work. It is well known that in Pareto's judgment socialism as state-intervention would be a poor substitute for individual initiative in regard to business forecasting. Among recent contributions are to be mentioned those of Pantaleoni, Benini, Gini, Virgilii, Fanno, Mortara and others. In *Rivista*

di Economia Politica for 1931 Fossati wrote on "Teoria degli Sbocctri" (Theory of Markets) and "Crisi di Sovraproduzione" (Crises of Overproduction). Carli's "La Teoria delle Crisi come Ricerca centrale dell "Economia dinamica." The Theory of Crises as the Central Research of Dynamic Economics, published in *Archvio di Studi Corporativi* is like Fossati's paper a detailed study. Carli rejects the monistic monetary interpretation and looks for the cycle in the discrepancies between supply and demand. In Carli's analysis the distinction between the agricultural and the industrial regions is fundamental in so far as economic dynamics is concerned. And in this position he connects himself up with the German theorist Sombart and Marx.

Haberler's preferences and exclusions in the matter of leading documents of the cycle-theory call for another observation. From chapter to chapter one encounters a very large amount of German material both in original as well as translation. To this extent the work will be appreciated by English-speaking readers, especially as they will find for themselves in this presentation some of the supplements to and criticisms of the Anglo-American literature from the German side. And yet it is worth mentioning that the German authors chiefly considered are Hayek (now British), Schumpeter (now American) and Spiethoff. It must be observed that justice has been done to the work of Spiethoff, and this is another solid contribution of this book because Spiethoff's analysis is penetrating and deserves to be made popular. But all the same, one is led to inquire why Marx has been referred to only once (and in an incidental manner) and Sombart entirely ignored. The distinction between "endogenous" and "exogenous" theories was perhaps first given by Sombart who has, besides, a leading rôle in the theory of cycles in other respects. And in so far as Marx believed that the circulation of money may take place without crises but that crises cannot take place without monetary circulation his position in the cycle-theory is well worth looking into even today.

Utterly inexplicable is Haberler's exclusion of Wagemann, whose *Einführung in die Konjunkturlehre* (Introduction to the Theory of Conjuncture), Leipzig (1929) is a comprehensive treatise on the subject as much in criticism of existing literature of all schools as in the constructive interpretation of the phenomena in question. Wagemann's examination of the German and the British conjunctures from 1820 to 1913 and of the German alone down to 1928, in regard to marriage curves and business curves is a mentionable contribution to the indices of prosperity and depression. In his classification of economic

regions according to the grade of capitalistic developments we encounter a new form of disharmony in the absence of territorial uniformity, and this can be a fruitful source of economic disturbances or cycles.

Wagemann is a pluralist like many others. Besides, he is not sanguine about the possibility of economic forecasting in any significant sense, although he attaches importance to "economic barometers" and indeed is in charge of the economic barometer at Berlin as Director of the *Institut für Konjunkturforschung* (Imperial Institute for Researches into Conjuncture).

It is not necessary to go into the exclusions in a hypercritical manner. The work produced by Haberler, as it is, will be used by scholars and general readers with great profit as a lucid and rationalized presentation of economic dynamics.

REVIEWS OF BOOKS

SCIENCE OF PUBLIC FINANCE, by G. Findlay Shirras. Third Edition Completely revised and rewritten. Macmillan & Co., 2 Vols. 42s. net. Pp. xliv plus 1146.

Public Finance by Shirras has long been a standard work on the subject. In fact Public Finance and Shirras are synonyms for the students of Indian Universities. The present enlarged edition must have been received with delight by students, for the old 1925 edition had long since ceased to be an up-to-date treatise on the subject. The period of incubation of this edition has, however, been an unusually prolonged one. For, the publishers had advertised it in their list of "forthcoming books" about three years before it was actually put on the market.

The treatise now appears in two volumes. The dust cover claim is that the contents of the earlier editions have been completely revised and rewritten. This is true of the descriptive and historical parts of the work, but the principles of the science seem to have undergone no appreciable changes. We would have liked Prof. Shirras to have made certain changes in the theory of expenditure and revenue as also in their presentation.

The preface claims that "no existing treatise in English contained the latest improvements which have taken place in the theory of public finance." This claim is a just and correct one.

As far as the theory of public finance goes we would like to make the following observations.

Public and Private Expenditure.—In comparing the two it is said that public expenditure is compulsory in character. Interest on debts must be paid and a certain level of expenditure on services such as public health and education must be maintained. This in our opinion is almost equally true of private expenditure. Interest a private individual must pay. He must clothe himself and the members of his family, and he must fill his belly as also those of his dependents. In a country like India, especially, private expenditure contains a larger compulsory element than public expenditure.

It is further said that a private person takes net advantages into consideration while the State cannot do so. It has to undertake expenditure on defence, law and order, education, poor relief, roads, waterways, etc. We cannot see how the considerations of net advantages are not involved here. Is it meant that the State incurs expenditure on law and order, education, etc., in spite of the fact that there is no net advantage in so doing?

The Canons of Expenditure.—The four canons of Benefit, Economy, Sanction and Surplus have been inherited from the previous edition. These are administrative rules rather than canons. The canon

of sanction is not an independent canon, but a corollary from the canon of Economy or Benefit. Why is sanction necessary? It is only to ensure that public money shall not be ill-spent. If it is ill-spent it violates either the canon of benefit or that of economy.

The canon of surplus is not strictly a canon of expenditure as surplus is a function of revenue and expenditure. If however we overlook this point, the canon of surplus appears as a mere corollary from that of benefit or economy. Why should expenditure and revenue normally balance? The answer is that if they do not, it would involve the people in uneconomical financial operations.

Classification of Public Expenditure.—The criticism of Pigou's classification of public expenditure is a new feature and is in agreement (to a certain extent) with such criticism contained in the reviewer's book on the Nature, Classifications, and Principles of Public Revenue and Expenditure. But the author's Ideal Classification into Primary and Secondary persists. As the reviewer has shown in his book just referred to this classification is a shallow one.

Classification of Public Revenue.—Prof. Shirras seems to accept Seligman's classification in substance—a classification which as shown by the reviewer in his book, is defective in several ways. However, an Ideal classification into tax-revenue and non-tax revenue is later suggested. But this classification is no classification so long as the meaning of the term tax is not definitely fixed.

Taxable Capacity.—We would agree here with Prof. Shirras that the concept of absolute taxable capacity is not an altogether hollow one. But how absolute taxable capacity should be measured is certainly a difficult problem. The "limit of squeezability" is a correct measure but care should be taken to interpret squeezability appropriately. On this point we would feel more inclined to go with Prof. Shirras than with Dr. Dalton.

Shifting and Incidence of Taxation.—The various theories are explained in detail. But there is some needless repetition as far as the general principles of incidence go. Moreover, there are some sweeping statements which need correction. "If there is complete mobility of capital and labour and no economic friction, taxes on commodities, other things being equal, will be shifted from producers to consumers." is too categorical a statement in spite of the clause "other things being equal." The tax need be and generally would be shifted only partly, and certainly *must* be partly shifted even when mobility is incomplete.

"If a tax is assessed upon a monopoly as a unit or on the net profits of the monopoly, *i.e.*, if it is independent of output, it rests where it falls." is again an incorrect statement. The first part is correct; but a tax assessed on monopoly revenue does not necessarily rest where it falls. It is not shifted (either positively or negatively) only when the tax is *proportional* to monopoly revenue. It may be noted here that what is true of monopoly revenue is true also of all surpluses, rent of land included.

The word profit appears to have been the cause of some trouble to Prof. Shirras. We would not certainly agree with him when he says,

"The majority of *economists* now regard profits as composed of interest on capital, insurance against risk, and earnings of management." No modern economist of any standing includes interest on capital in profit. Nor can we accept the statement that "Profits are a surplus which the producer obtains owing to certain advantages enjoyed over the marginal producer." If by profit we mean "normal profit" or "surplus profit" then it is earned by marginal producer also—in the first case always, in the second, whenever surplus profits accrue. If, however, we understand by profit (what we should not in fact understand) the rent of ability, then certainly it is true that it is not earned by the marginal producer.

Advantages and Disadvantages of Public Debt.—We are told that "Public credit enables capital to be borrowed by those who are able to use it to the best advantage. *It does not create capital;* it enables capital to be employed more effectively." (Italics mine.) A few lines after that it is said, "credit increases the national capital available for investment." If hoarded wealth be regarded as capital then these two statements are compatible with each other. But most economists to-day would disagree with Prof. Shirras here. The conservative theory that capital is not actually increased by public borrowings has hardly any adherents to-day.

As an advantage of Public Debt it is mentioned that "the regular payment of interest and the repayment of principal prove a steadying factor in the foreign exchanges." Those who see in capital movements between countries a major cause of economic maladjustments will certainly not be prepared to take this advantage at its face value.

On a careful scrutiny one can perhaps find a few more points on which economists would be inclined to differ from Prof. Shirras. But these are after all minor points. The book on a wholesale review must appeal to every unbiased reader as a monumental work rich in material and stimulating arguments.

For a teacher of public finance or for a financier the book is certainly useful but its thousand and more pages have made the students of Indian Universities invite smaller and cheaper publications on the subject. In the end let us advise Prof. Shirras to reduce the size of paragraphs in the next edition of his book. Paragraphs running through three pages is not an uncommon feature of the book (in one case at least a paragraph runs through five pages and a half).

J. K. MEHTA.

THE INCOME-TAX IN GREAT BRITAIN AND ROUMANIA, A COMPARATIVE STUDY, by VASILE G. VASILIU, PH.D.

The author is a high official of the Roumanian Ministry of Finance. The book reproduces, with some additions, for general publication the original thesis submitted to the London University for a Doctor's degree. The treatment in the book falls in four parts. In Part I the history of Roumanian Income-tax has been treated in outline. Prat II is an analytical summary of the present Income-tax Law in Great

Britain. Part III gives a detailed analysis of the present position of Income-tax Law in Roumania. Part IV contains the really interesting portion. A comparison between the two tax systems is here attempted.

Reviewing the various versions of the Ability Theory the author concludes that 'only the objective-subjective ability to pay, as interpreted by Prof. Seligman, can serve as a solid foundation for a discussion of the two taxation systems.' What is implied here is the notion of a net income after allowing for both the costs of production and the requirements of the taxed person. Such important features of Income-tax Law as persons liable to tax, double taxation, taxation of corporations, differentiation, progression and exemptions are discussed in separate chapters with reference to the two countries.

A criticism that can be brought against the Roumanian Income-tax on the ground that it affects all taxpayers, no matter how small their incomes are, has been met by the author by reference to the need of productivity. The same consideration in his opinion justifies the reduced figure for family allowances. As an experienced Income-tax Officer the author finds fault with the uncivic tendency towards evasion, manifested by the Roumanian public, contrasting with the comparative readiness of the British taxpayer. The statistical material for comparison of tax burdens is mostly lacking for the author's country.

It is doubtful whether any practical purpose is served by comparing the tax system of an industrially and politically advanced country like Great Britain with that of a comparatively backward country like Roumania. In any case the usefulness of the study would have been greatly heightened by its being prefixed by a sketch of the industrial organisation of Roumania. Even as it is, however, the book is calculated to interest income-tax reformers in our country.

D. G. KARVE.

AGRICULTURAL HOLDINGS IN THE UNITED PROVINCES, by BUDDHI PRAKASH JAIN, M.A., with a foreword by SIR D. L. DRAKE-BROCKMAN. Printed by the Malhipur Press, Saharanpur, pp. 131.

The economic condition of the Indian peasant has engaged the attention of the Government and of the public for a long time. The Indian peasant is frightfully poor and in spite of continuous toil is only half-fed. One potent cause of this miserable state of affairs is the fragmentation and sub-division of holdings. As the Royal Commission on Agriculture points out fragmentation of holdings is a serious drag to the progress of agricultural improvement. Un-economic holdings make it impossible for new methods of agriculture to be tried; and without such methods the income of the agriculturist cannot be improved to any appreciable extent. Uneconomic holdings are at their worst in the United Provinces. In this book Mr. Buddhi Prakash Jain makes an attempt to study this problem in the U.P. in a systematic and scientific manner. He has collected statistics and made extensive use of official records.

After explaining at the outset the methods and objects of the enquiry Mr. Jain reviews the nature and size of holdings in the rest of India and next proceeds to the U.P. The causes and effects of fragmentation are described in Chapter IV. He rightly attributes this evil to the partition of the proprietary holdings both according to Hindu and Muhammadan law. In the next two chapters Mr. Jain describes the progress of consolidation of holdings in the various provinces of India and the Western countries. In the Punjab and Central Provinces consolidation has made considerable headway both through legislative and executive measures. The Co-operative Department has also played its part in bringing about consolidation of holdings. In U.P. there has been no appreciable progress in consolidation. The author strongly pleads for Government action both legislative and administrative —for bringing about the consolidation of holdings. Such action has been taken in the past by various Governments of the West; and they have spared neither men nor money in effecting this change fraught with so much of good to the economic life of the people.

The final section of Mr. Jain's book deals with proposals for the consolidation of holdings in the United Provinces. He rightly points out that reform in this matter must be the outcome of common action by Government, Co-operative Societies and leaders of public opinion. While holding that State intervention is desirable and necessary he is opposed to any great element of compulsion which, according to him, should come in only if reform is held up by the persistence of a very small minority. Changing the law of inheritance would be too drastic a method; and hence Mr. Jain advocates the removal of legal and economic difficulties which at present impede voluntary consolidation. After all, consolidation is only a means to an end; and the end is the improvement of the methods of agriculture and of the economic condition of the peasant. So consolidation and improvement in methods of agriculture should go hand in hand.

Two appendices add to the value of the book: (1) The Procedure of restripping in Western countries: (2) General Physical Features, Agriculture and Land-Tenure in the United Provinces. A useful bibliography and two maps of the village of Fakhriri Tehsil, Roorkee District, showing plots before and after consolidation are also given. The printing and get-up of the book leave much to be desired.

Mr. Jain deserves to be congratulated on the pains he has taken in collecting the statistics.

B. V. NARAYANASWAMY.

BOSCH: THE PREVENTION OF FUTURE CRISIS IN THE WORLD ECONOMIC SYSTEM. (Constable & Co., Limited. London, 1/6.) Pp. 39.

This little brochure of less than 40 pages is an excellent example of the pitfalls that beset anyone who attempts to deal lightly with what is in fact a very complicated and difficult problem.

Herr Bosch is the venerable and successful owner of the Bosch works, and a benevolent employer of the Robert Owen type. It is sot

surprising therefore to find him convinced that the principles and methods which he has applied so successfully to his own business, must necessarily be capable of successful application to the world as a whole. In so thinking he underestimates the difficulties due to the greater heterogeneity and infinite variety of economic and political conditions prevailing in the world as compared with Nazi Germany.

Nobody can quarrel with his enunciation of the three main objects of his brochure, *viz.*, to show the utility of technological progress, the futility of class war, and the desirability of a change in the mental attitude of man to man and of nation to nation. But one cannot avoid a feeling of surprise when one finds a successful businessman in Nazi Germany inveighing as strongly as Herr Bosch does against the evils of autarchy and in particular its stranglehold on free trade. It is not that he is entirely ignorant of some of the difficulties with which densely populated countries like Germany, or England for that matter, would be faced if all tariff barriers were removed. He would prevent dumping, and would also like to see together with free trade in goods, free movement of human beings from one country to another. He seems unaware, however, of the very difficult problem of reconciling free trade with competition from countries with a very much lower standard of living though not of efficiency. Nor does he pay attention to the less fundamental though still important question as to how countries that now derive an important portion of their total revenues from customs, are to find alternative sources of income.

In enumerating some of the familiar causes of the recent world crisis, Herr Bosch strongly opposes the necessity for the abolition of Capitalism because "the kind of human being necessary to the conduct of a Socialist State system simply does not exist." Yet the measures he advocates to avert future crises look suspiciously like what an authoritarian state alone, whether socialist or fascist, would be in a position to adopt.

He would reduce hours of work *pari passu* with technological improvements, and is confident that with a reduction of, say, from eight to six per day, "the price of commodities can most certainly be reduced by some 25%," given more efficient production and economical distribution. Distribution costs would be cut down by confining the work to larger units which should be in a position to reduce prices by at least 15% on account of their better turnover. Production is to be made more efficient by cartels whose objects would be to utilise the most efficient plants to capacity and sell at the lowest possible prices compatible with the highest possible demand. To those familiar with the objects for which cartels and other combinations have been and usually are formed even to-day, this enunciation of cartel policy is nothing short of revolutionary.

In conclusion, the best that can be said for Herr Bosch's work is that though its title is misleading, it represents a helpful attitude of mind towards the difficult economic problems precipitated by recurrent crises in the modern world.

E. H. S.

THE TENURE OF AGRICULTURAL LAND, by SACHIN SEN, M.A., B.L. Published by the Politics Club. Post Box. No. 175. Calcutta, 1937. Pp. 114. Price Rs. 2.

The book is divided into two Chapters. In Chapter I the author has described and critically discussed the tenure of agricultural land prevalent in most of the European countries including Russia. Then he describes and criticises the existing system of land tenures in Bengal. In Chapter II the author has suggested a scheme of land tenure which in his opinion would do away with the existing evils and usher in an era of contented and prosperous tenantry.

The book is well written and gives evidence of the wide acquaintance of the author with tenancy law in places other than Bengal. His suggestions for improvement are based on sound principles and we would strongly recommend them for serious consideration to the Committee on Land Tenure that the Government of Bengal have decided to appoint to consider the question of tenancy. Author's point of view deserves to be represented.

B. G. B.

No. 51: Of the Board of Economic Inquiry, Punjab.

This publication gives us an Economic Survey of Jamalpur Sheikhan, a village in the Hissar District of the Punjab. The investigation was conducted by Messrs Bashir Ahmad, M.A., and R. L. Anand, M.A.

This is the tenth village survey published by the Board of Economic Inquiry, Punjab. It deals with a large village near the northern boundary of Hissar District having a population of 1865 Muslims and 647 Hindus. The standard of living of the people is extremely low and the authors observe "until greater security through a more assured water-supply can be offered to such areas there is not much prospect of improvement."

The report maintains the high standard of work that we have learnt to associate with the publication of the Economic Inquiry Board.

B. G. B.

INDIAN AGRICULTURAL ECONOMICS, by A. D. PATEL, M.A. Published by D. B. Taraporevala Sons & Co. Bombay. Pp. 324.

The book under review was rather adversely criticised by Dr. Sam Higginbottom in the columns of the *Leader* recently. When I took it up for review I had the impression of it left on my mind by what I had already read in the *Leader*. I must say that Dr. Higginbottom was unduly hard. The only mistake that the author has made, and for which one can hardly find any justification, is the high-sounding title that he has given it. To call what at best is the economic survey of a Taluka in Gujarat as Indian Agricultural Economics, was certainly unjustifiable. But this does not mean that the work, as it is, is worthless. It gives us an excellent idea of rural life as it exists in the

Borsad Taluka in the Bombay Presidency, and I must say in fairness to Mr. Patel that so far as the investigation of existing facts and their delineation in a logical order is concerned the author has done full justice to them. It is only in his generalisations that one sees unmistakable marks of unrestrained imagination. It is true that many of the agricultural problems of the various parts of India are, if not the same, then similar, yet Borsad is not India and the peculiar problems of Borsad cannot exactly be the problems of India as a whole.

B. G. B.

AGRICULTURAL MARKETING IN INDIA, by B. B. MUKHERJEE, M.A. Published by Thacker Spink & Co., Ltd., Calcutta, 1937. Pp. 259. Price Rs. 4/8/-.

The book under review seeks to fill in a gap in our literature on agricultural economics of India. It is true that up to very recent time there was hardly any serious literature on this aspect of Indian agricultural economy. A start was made in this direction by the Royal Commission on Agriculture, and a mass of useful information was collected by the Central as well as the Provincial Banking Enquiry Committees. Since then useful monographs on the marketing of some crops have also been issued by the All-India Marketing Board.

Mr. Mukherjee in his book has utilised the above sources of information on the subject and has further supplemented them by his personal investigations in the various markets in the different parts of the country.

The results of Mr. Mukherjee's studies are summarised within fourteen chapters in which the book is divided. Chapter I is introductory and deals with certain general features of agriculture. In Chapters II to XIV, the Middleman, Markets, Commodity Markets, Methods of Sale in Markets, Market Finance, Weights and Measures, Storage, Adulteration and Grading, Transportation, Trading in Tributes, Agricultural Prices, Cooperative Marketing and State and Marketing are described and discussed.

Mr. Mukherjee's approach to the various subjects dealt with in the book is realistic, and his treatment comprehensive. All students of agricultural economy in this country would find the work both readable and profitable. We wish, however, that Mr. Mukherjee had given greater attention to reading the proofs of his book. Practically every page is full of mistakes most of which are evidently the result of careless proof-reading.

B. G. B.

DANISH AGRICULTURE—ITS ECONOMIC DEVELOPMENT, by ENIAR JENSEN, 1876—1930. Published by J. H. Schultz Forlag. 15, Harnegade, Copenhagen. 1937. Pp. xix, 417.

Denmark is a part of the northern fringe of the North European plain country. The natural resources of the country are predominantly agricultural. It is here that lies the appeal of this book to those interested in the development of Indian agriculture. The book is divided into thirteen chapters. In Chapter I, a survey of political and economic history of Denmark is given. In Chapter II. climate, soil and topography of the country are described. Chapter III gives us information about the people and their social background. In Chapter IV, the system of land tenures is described. Chapter V describes the industrial and commercial policy followed by the country and the effect of these policies on agriculture is pointed out. Chapter VI gives us an idea of the changes introduced in the technique of agriculture during the period of study. Chapter VII points out the effects of monetary and technological influences and of tariffs. In Chapter VIII, we find a statistical summary of Danish Agricultural Development since 1875. Chapter IX gives us an idea of the changes in production on the representative farms. In Chapters X and XI problems of economic organisation are discussed and it is pointed out that the differences in organisation are due to the differences in the size of farms and to sectional character of natural resources. In Chapter XII. the part played by cooperation in Danish agriculture is fully discussed. Chapter XIII gives us the conclusions of the author and the future outlook.

This is an extremely well written work on Danish agriculture. The subject has been more or less exhaustively dealt with from practically all points of view. The book should prove of very great interest to us in India where like Denmark agriculture is and is likely to be in the visible future the predominant industry of the country. The study of a book of this type is likely to be an eye-opener to us in India. While Denmark during the last 75 years has been making full use of every available discovery of science and of every available invention and thus has succeeded in creating a high place for herself in the world market of certain agricultural products, we in this country have been practically there where we were at the beginning of the 20th century. The book is so full of useful information that justice can only be done to it by a careful reading of it.

B. G. B.

THE ECONOMIES OF COOPERATIVE MARKETING, by HENRY H. BAKKEN, M.A., and MARVIN A. SCHAARS, PH.D. Published by McGraw-Hill Publishing Company, Ltd. Aldwych House, London. 1937. Pp. viii, 583.

The purpose of this book, according to the authors, is to present a comprehensive statement of the basic philosophy, the decisive principles, and the practical methodology of cooperation, though its title would lead one to think that it concerns mainly with the application of the prin-

ciple of co-operation to marketing, *i.e.*, the buying and selling of commodities.

The book is divided into five parts, consisting in all of twenty-one chapters. In Part I the authors have traced the evolution of cooperative buying and selling. In Part II the economic philosophy of cooperative marketing in the United States has been discussed. Part III gives us the legal considerations, with special reference to the existing law on the subject in U.S.A., of the cooperative method of marketing. In Part IV functional relationships of co-operative organisations are considered. While in Part V limitations and possibilities of co-operation in future are discussed.

The book is a very comprehensive treatise on the subject of co-operative marketing as it has developed in the various parts of the western world and the treatment of the subject by the authors is both dispassionate and critical. It is not merely a text on marketing but a treatise on co-operation with special reference to marketing. As such we find very useful material in it on forms of co-operation other than marketing. We commend the book to all students of co-operative movement.

B. G. B.

THE DEVELOPMENT OF LOCAL BOARDS IN THE MADRAS PRESIDENCY, by M. VENKATARANGAIYA, M.A., University of Andhra, Waltair. Published by The Local Self-Government Institute, Bombay. 1938. Pp. xvi, 242. Price Rs. 4.

The subject of Local Self-Government in India is one which has not yet received the consideration it deserves from scholars of socio-economic problems in this country. But a beginning seems to have been made in the study of this subject. The present work is the second of its type, first being Rural Self-Government in Bengal by Naresh Chandra Roy, published in 1936. Mr. Roy definitely confined himself to the delineation of rural local self-government as it is in Bengal to-day; therefore while reviewing his book for the *Indian Journal of Economics* I had no occasion to assess its value from the point of view of a student of historical evolution. But the case with the book of Mr. Venkatarangaiya is different. As the title of the book signifies he set to himself the task of tracing the development of Local Boards in the Presidency of Madras, evidently in the British Period. His second object in writing the book would be clear from what he observes in the Preface: "To-day we are on the eve of very many changes in the administrative machinery of our country. The institutions that have been built up in the course of the last three generations are being critically examined from a variety of standpoints... But before effect is given to these new ideas, it will be useful to understand exactly where we are to-day, so that changes proposed might fit in as far as possible with what is already in existence. It is with the hope of facilitating such an understanding in the sphere of rural local self-government that the author has ventured on the publication of this book."

The book under review is divided into six chapters, each of which is again divided into a number of sections. Chapter I is entitled The Evolution of Administrative Areas, Chapter II The Constitutional Development of Local Boards, Chapter III State Control and Supervision, Chapter IV Expenditure of Local Boards, Chapter V The Revenues of Local Boards, and Chapter VI Certain General Considerations. The first five chapters have been dealt with in an evolutionary way, that is to say, the author has first traced the beginnings of the item under consideration, then dealt with its development and the existing position and finally after criticising it in the light of certain principles has offered his suggestions for future modification. In almost all cases the author has begun his study from the year 1863, and has not utilised the material available for years prior to that date. This has resulted in at least one conclusion which does not appear to be true to facts. The author observes "that two local taxes were raised before 1871, one the education rate under the Education Act of 1863, and the other the road cess under the District Road Cess Act of 1866. In the matter of constituting authorities to administer those taxes a distinction was drawn. In the case of the education rate. provision was made for the establishment of a committee in every locality in which a rate school was started . . a body (consisting) partly of officials and partly of non-officials . . . The procedure adopted in respect of the road cess and its administration was entirely different. Instead of establishing a new authority for this purpose. it empowered the Collector of the District to manage the road fund with the advice of the District Engineer in all technical matters."

The observations of the author are likely to lead to the conclusions (1) that a start in the matter of education and road construction was made during the sixties of the 19th century and (2) that administrative machinery distinct from the Collector of the District and somewhat non-official in character was set up only in the case of education. From the notes and references in my possession regarding rural local self-government in the Presidency of Madras it would appear that the beginnings of local self-government in that Presidency are traceable from the second quarter of the 19th century and, if Police is taken into consideration then from the 1st quarter of the 19th century. From the same data it is also evident that the practice of associating non-official gentlemen of the locality for the administration of ferry funds, which were mostly utilised for the construction of roads. as also of the road fund which, by the way, existed in the Presidency very much prior to the Act of 1866, was adopted very much earlier. If the author had examined the data prior to the dates which he has adopted as his starting points, I am sure, some of his conclusions would have been different, and his study, from a purely scientific point of view, certainly fuller.

Barring the above shortcoming, Mr. Venkatarangaiya has done as much justice to the subject of rural local self-government in the Presidency of Madras as a student who has fully utilised the material that is available to a non-official student in our country after 1871. If he had gone sufficiently backwards he could have never made a statement such as "The members of panchayats, that looked after the village community, were never elected . . . ." And if he had studied widely the

available literature on the subject in other parts of the modern world his criticisms and the remedies suggested would have been very much different. But as somebody said "the saddest words are might have been;" so without wasting our time on might have beens we hasten to say that the author has placed before us an accurate and thoroughly readable account of evolution of rural local government in the Presidency of Madras since after the Mutiny, and that his criticisms of the existing state of things are mostly sound and that his suggestions for future development merit very serious consideration before a plunge is taken in the alteration of the Law on the subject in that Presidency. I congratulate Mr. Venkatarangaiya on bringing out this valuable work on this very much neglected subject, and feel no hesitation in saying that all students and administrators interested in rural local self-government in this country would find the book interesting and inspiring.

B. G. B.

RAILWAY RATES IN RELATION TO TRADE AND INDUSTRY IN INDIA, by R. D. TIWARI, M.A., LL.B.

Mr. Tiwari is to be congratulated on this work, which fills a real gap in the sparse literature on the subject and it contains a mass of valuable information which throws a flood of light on the rates policy of the Indian railways. One may not agree with all the conclusions of the author and yet it has to be admitted that in criticising the rates policy of the railways, the author has laid his hands on certain really weak spots so far as the railways in this country are concerned. As a matter of fact, the main trouble arises from what the author calls the individualistic policy of the railways which have failed to take a broad view of the needs of Indian industries and trade as a whole and which seem to have been more concerned with their own interests than the interests of the country. The author's advocacy for a national rates policy will find an echo in every patriotic Indian's heart especially as the railways are instruments which can make or mar the fortunes of the traders and industrialists of the land. In this connection the Indian railways can very well follow the example of the German railways which have done a great deal to develop the trade and industries of that country. A reform, which is long overdue, is to transform the Railway Rates Advisory Committee into a full-fledged tribunal, as was suggested by the Acworth Committee long ago, if this body is to inspire real confidence among the commercial community. But all these changes can only take place provided there is a real change in the outlook of the Railway Department of the Government of India.

M. K. G.

INTERNATIONAL TRADE IN CERTAIN RAW MATERIALS AND FOODSTUFFS by COUNTRIES OF ORIGIN AND CONSUMPTION, 1936. Published by LEAGUE OF NATIONS, GENEVA, 1937.

This volume, the second of its kind, to be published by the Economic Intelligence Service, contains provisional statistics for 1936 and

completed statistics for 1935. Like the previous volume, the statistics contained in the volume are confined to 35 commodities, principally raw materials and foodstuffs of importance in international trade. These include wheat, sugar, rubber, wood in various forms, hides, wool, cotton, silk, iron and steel, copper, motor spirit. A detailed descriptive list of the commodities is included in the volume. The publication represents an important improvement over the previous one in that the number of importing countries covered by the various tables has been increased from 42 to 122, thus making the statistics practically worldwide. These 122 countries represent 98% of total world trade in 1935, as compared with the 84% represented by the 42 countries covered by the previous volume.

The volume contains an introduction which draws the attention of the reader to the various causes of discrepancies and possible errors involved in trying to secure comparability of exports with the corresponding import data. Whilst the volume is only a first attempt to solve the problem of the comparability of trade statistics by the adoption of uniform principles, it is believed that the figures given afford a valuable indication, if not a precise record, of the flow of goods from the producing to the consuming countries.

B. G. B.

REPORTS OF THE BOARD OF ECONOMIC ENQUIRY, PUNJAB. Nos. 34, 42, 48, 49, 50, 52 and 53.

These reports as usual are all very interesting and full of useful information regarding economic life in the Punjab. No. 34 is in Urdu and deals with the history of evolution and the present condition of the gut industry in the district of Sialkot. It is very interesting to know how this industry has come to acquire its present position.

No. 42 describes the condition of Weights and Measures in the Punjab and makes some useful suggestions to improve the existing state of things.

No. 48 is the Economic Survey of Suner, a village in the Ferozpore District of the Punjab. The inquiry was conducted by Mr. Lajpat Rai Dawar, under the supervision of Mr. Shiv Dayal, M.A. This is the ninth report in the series of the Punjab Village Surveys. From a study of the report it would appear that in many ways the conditions obtaining in Suner are different from those in other villages surveyed.

No. 49 deals with some factors affecting the price of wheat in the Punjab. The inquiry was conducted, under the supervision of I. D. Mahendru, M.A., by Messrs Lajpat Rai and Farzand Ali Shah.

No. 50 gives us family budgets for 1934-35 of six tenant cultivators in the Lyallpur District. This investigation was conducted by Messrs Labh Singh and Ajaib Singh of the Punjab Agricultural College, Lyallpur.

No. 52 gives us the agricultural statistics of the Punjab for the years 1901—02 to 1935-36. These were collected, compiled and made presentable by Mr. Gulshan Rai, Economic Investigator of the Board of Economic Inquiry, Punjab.

No. 53 gives us the Farm Accounts in the Punjab for 1934-35, by Messrs Labh Singh and Ajaib Singh. This publication is eleventh of the series started in 1923-24. In the work under review all the aspects dealt with in the previous reports have been discussed with the exception of the cost of lifting water from the tube-wells in the Jullundur and Ambala Districts. At the Jullundur Farm an iron Persian wheel was worked by electricity during this year. This is a new combination and its cost of lifting has been included in the present work.

All the above publications of the Board of Economic Enquiry are full of useful data. which is of great value to students of rural economic conditions in India.

B. G. B.

AGRICULTURAL PRICES IN THE UNITED PROVINCES. by RAJ BAHADUR GUPTA, M.A., PH.D.

This is Bulletin No. 1 of the Bureau of Statistics and Economic Research in the United Provinces. An attempt has been made in this monograph to trace the course of agricultural prices in U.P. from 1861 to April 1937. To gauge precisely the effects of price variations on agricultural interests some figures relating to land-revenue, rents, population, cultivated area and irrigation have also been added for the same period.

The conclusion to which the author has arrived at after an intensive study of the above data is "that agricultural prices in the United Provinces are not expected to rise appreciably in the immediate future unless the Indian Government...... alter the exchange value of their currencies or change their fiscal policy or unless war or such other abnormal contingencies arise."

B. G. B.

AN INTRODUCTION TO ECONOMIC THEORY, by SEN AND DAS (2nd Edition). Rs. 4. Book Land. Published by the Authors, Ashutosh College, 9, Russa Road, Calcutta.

This is the first attempt, so far as we know, that Indian writers of text-books on Economics have made to incorporate in the exposition of the subject the results of the most recent research. Most of the Indian text-books are content to deal with the orthodox principles as expounded in standard books like Marshall, Taussig, etc. Great praise is due to the joint authors of this volume for the vast amount of recent literature which they have been at pains to read to assimilate, and for giving a comprehensive summary of economic theory up-to-date. Our admiration for the feat is all the greater when we remember the severe handicap under which most teachers in Indian colleges

labour. The routine duties with which they are generally saddled are so heavy—so miscellaneous in character—as to make it impossible for them to keep abreast of modern developments. Even when there is sufficient leisure, the library facilities are as a rule most inadequate and few can afford to buy all the worthwhile literature on the subject which is growing so fast in these days because powerful minds in many countries are finding themselves forced to accept the challenge of many new problems unknown to the last generation. While, however, we congratulate Messrs. Sen and Das on their creditable achievement and commend their book to the attention of every serious student of economics in this country, we may be forgiven if we point out what appear to us to be some of its defects. We do not believe that much is gained by trying to include in a book like this, controversial matter culled from the latest issues of Economic Journals and periodicals on which anything like general agreement has not yet been reached. On the contrary such a procedure is likely to cumber the mind of the average student with confused notions of all kinds. It would be too much to expect that the type of reader for whom the present book is designed will be able to follow the different controversies in their subsequent developments until they are finally settled. We also feel that the authors have in several places not exerted themselves sufficiently to simplify the exposition of ideas and doctrines which because of their difficulty and unfamiliarity require more explanation. Lastly a stricter regard for English idiom and grammar would have been welcome. "If every one of us were to . . . try to attain Nirvana, the hub of the motor of human activity will cease." "The cup that cheers but not inebriates finds a welcome smile in every middle-class home" (p. 34). "Though long-period results never happen, they are nearly realised" (p. 187). Surely the authors are capable of expressing themselves more happily than in these extracts!

G. B. Jathar.

World-Population—Past Growth and Present Trends, by A. M. Carr—Saunders—Clarendon Press, Oxford, 1936. Price 12s. 6d.

The first task of the reviewer is to express unqualified apologies to the author, the publishers and the Indian Economic Association for the very long delay on his part in submitting this Review.

Literature on Population is rapidly growing, perhaps at a larger rate than population itself, and recent contributions, such as those of Thompson and Whelpton, Kuczynski, Lorimer and of Carr-Saunders himself are of outstanding interest. This book is of special importance as it deals with the world problem as a whole, and has got a well conceived plan of compilation and presentation of material, skilful argument, and valid and valuable conclusions on a subject of enormous scope and complexity.

"No one has yet written an adequate account of the efforts made by men to count themselves," and even in 1930, the estimates of the

world population by well-established authorities vary from 1,988 millions to 2,028 millions. The difference in the estimates would probably have been larger but for the practice of the compiling authorities to copy out the same incorrect guesses in regard to countries for which no accurate censuses exist. The fact is that even at the present time, according to Kuczynski, "our knowledge of from one-quarter to one-third of the probable world population is subject to a margin of error of over 10 per cent."

In a very interesting chapter the author has reviewed the statistics compiled by Willcox and the League of Nations, and has presented to us what, according to him, are the revised estimates of the population of the world between 1650—1933 (Table 8, page 42). Though it is generally recognised that the last three centuries have been marked by an unusual, and unprecedented expansion in numbers, the presumption that the impulse towards expansion began in Europe and was somehow transmitted to other continents is not correct, since in China and Japan and possibly other Asiatic countries expansion had begun even earlier. Between Europe and Asia about four-fifths of the world's population had always been included, Europe gaining steadily from 18·3 to 25·2 per cent. of the total, and Asia's share in world's total losing from 60·6 per cent in about 1650, to about 54·5 per cent in 1933. It will of course be not supposed that this difference is wholly due to migration between these two continents. What is remarkable is the gradual loss in the share of Africa (declined from 18·3 per cent. to 7·0 per cent) and the progressive increase in the proportion of population in Occeania and America (from 2·8 per cent in 1650 to 13·2 per cent. in 1933).

Of the two factors death-rate and birth-rate the former was of greater significance than the latter in the population changes in the earlier part of this period in European countries. With respect to England we are told that "the rate rose during the first three decades of the 18th century. These decades witnessed an unexampled orgy of drunkenness. The control of the sale of beer had become lax towards the end of the 17th century; but this was a minor matter compared with the failure to control the sale of spirits and especially of gin which came into favour at that time. Contemporary accounts abound with descriptions of the degrading scenes which were everywhere enacted. Attempts were made to cope with the evil in 1729 and 1736, but they were ineffective. An act of 1743 was better designed and the retail distribution of liquor was brought under some control; further improvements were made, among which an Act of 1751 was especially important. This extraordinary episode may be regarded as one in which there was a serious deterioration of (social and economic) conditions which resulted in a rise of the rate through gross abuse of alcohol." This passage will doubtless be read with very great interest in India when all the continent over prohibition laws are being passed.

The methods of correcting the crude death-rate, and the difference in the levels of the crude death-rates are discussed at some length, and so also of the factors measuring the fertility ratios in communities in very clear and non-technical language. The conclusion of this discussion is that "within the sphere of European civilisation,

Ireland alone excepted, the only important cause of the decline of the birth-rate is that married women of given age are far less likely to bear a child within a year than formerly." The causes, leading to this phenomenon, such as practice of mechanical means of birth-control, rapid urbanisation or sub-urbanisation of rural peoples, force of religious faith, of economic status of individuals and of changing economic conditions in the countries, etc., have all been very carefully studied, and although several factors are undoubtedly at work, the author is of opinion that birth-control should be held to explain sufficiently the facts of the decline of the birth rate within the sphere of European civilisation.

Before passing on to the study of the situation in individual countries, and of the effects of migration, a brief account of the technical methods available for making forecasts of the future course of population from a knowledge of the net reproduction rate is given, but it is clear that none of the methods can be of any use in making correct estimates for any fairly long period. However these methods are very ingeniously applied to illustrate the situation in Europe. For instance, we read (in regard to North and West Europe) that "it is upon our behaviour in the next two decades that the course of population twenty years hence will depend: therefore, supposing, for instance, that we desire a stabilisation of numbers, we must remember that, though our present habits will leave the population only 2 or 3 millions below its present level two decades from now, they will inevitably bring about a drastic fall in the more distant future." Similarly with regard to South and East Europe it seems that. "since experience shows that where fertility has begun to fall latest, it has fallen most quickly, we may expect that the decline of fertility in South and East Europe will be rapid". while for Russia, her population "may well double itself before it stabilizes."

The most interesting speculation however is in answering the question how far such prospects coincide with the needs of the world distinguishing, as we should, the agricultural countries from the industrialised ones, and the author's views are expressed in pages 138—144 with great precision, but the conclusion seems to be negative in that we have no sound means of measuring the needs of the world. The next 80 pages that follow are taken up with examining the features and effects of migration, the outstanding conclusion of which appears to be that migration, both continental and overseas, as an instrument for reducing population pressure is becoming less and less efficient in the midst of growing national self-sufficiency. Here again the study impinges on the size of the family and the movement in the opposite direction, *viz.*, in the attempts to raise the birth-rate, and a very clear and impressive account is next given. There should be no surprise in this apparent contradiction, for, as the author puts it, the attraction exercised by the opposing considerations depends upon the scale of values, and the scale of values does change. People may therefore come to desire the long-run satisfactions of a moderately sized family more than the short-run satisfactions which are made possible when the family is small and the parents relatively free from parental cares. To this end not only changes in the age and amount of marriage should occur, but also in the attitude towards marriage, while simultaneously

changes should take place in the social and economic structure of Society to remove the disabilities in the bringing up of children. There is an account, and a very illuminating one dealing with the problems of Japan, India and other non-European peoples, comprised in brief space, but the history of the attempts made to influence in many countries the trend of population, the ambition of the expansionist sentiments of certain countries, the anxiety to strike the golden mean between a size of the family which ensures replacement of generations without detriment to personal comforts and enjoyment of the present generation is well told in this book. Because it is a problem not only of academic interest, but a live one with statesmen who have to formulate policies, and among them a correct population policy, for their nation. Not only Italy and Germany, but France and Belgium, Sweden and Great Britain are profoundly disturbed by the trend of fertility, and the Chancellor of the British Exchequer felt it necessary in introducing his Budget of 1935 to say that "if to-day we can give even a little help to those who are carrying on the race, the money will not be wasted."

K. B. MADHAVA.

BALANCES OF PAYMENT, 1936. League of Nations, Geneva, 1937.

It speaks well for the League of Nations that at a time when its authority is being openly defied by one power after another it is able to maintain an attitude of saintly indifference to these petty insults and pursue with undiminished vigour and zeal its valuable investigations into the economic conditions of the various countries of the world.

The volume under review analyses the international accounts of thirty-six countries as against twenty-nine countries in the last year's edition. (The figures for the country of Mussolini are however conspicuous by their absence) Balances on account of merchandise, interest and dividends, other services, gold and capital movements are supplied in a comparable form. The figures in the summary tables for the various countries (in the synoptical table) are rendered comparable by being converted into United States gold dollars. The balances of payments on account of current items, such as goods, services and gold, should tally (with an opposite sign) with those on account of capital movements, giving us no net balance. In certain cases however the net finite balances that appear represent errors and omissions.

It is of interest to note that the balances on account of current items in the case of the three principal creditor countries, United States, United Kingdom and France, have turned passive in 1936 after having been active for three years. The reason for this is a deficit on account of trade in goods. The balances on account of current items for important debtor countries which were passive from 1929 to 1931 have with few exceptions become active during the last five years. This change is particularly noteworthy in the case of Canada which has turned its deficit of 111 million gold dollars (1929) into a surplus of 191 million gold dollars (1936). The case of India is a patent one. In 1929 she had an active balance of 23 million gold dollars, From

1930 to 1935 she had in each year a passive balance (the reason being the dehoarding and export of gold) aggregating to 411 million dollars. In 1936, however, she again shows a surplus of 20 million dollars due mainly to the fact that the export of gold had fallen in that year to about one-third of what it was in the year 1931.

The prices of primary products have in recent years risen more than those of manufactured articles as a result of which the balance of trade has turned in favour of debtor countries.

The table on page 37 reveals some interesting facts. Judged by the figures of receipts and payments of interest and dividends, the United Kingdom is the greatest creditor country of the world. The United States of America and France come next with respectively 58% and 17% of the importance of the United Kingdom. Of the thirty-six countries reviewed here only ten are creditor countries.

India's net payment of interest amounted to 115 million gold dollars in 1929. In 1936 the figure stands at 71·6 million dollars. Canada, Argentine, Germany and Australia are the principal debtor countries.

The aggregate interest payments of all the thirty-six countries have fallen (in terms of sterling) by about 33% during the period 1929 to 1936. The main causes of the decline are (*a*) depreciation of currencies, in particular the pound and the dollar, (*b*) the reduction of dividend rates, (*c*) defaults, (*d*) liquidation of some debts and (*e*) the lowering of the money rates of interest.

India's balance of payments in respect of merchandise has been active from 1923-24 to 1936-37 with the exception of the year 1932-33. Her balance of payment in respect of interest and dividends and other services has however been passive without a single exception.

The foreign liabilities of the Government of India, in respect of sterling loans, railways annuities, etc., have fallen from 379·6 million pounds in 1932 to 358·8 in 1937, while the assets of the Government have increased from 28·7 million pounds to 86·6 during the same interval.

The facts mentioned here give some indication of the interesting information which a student of international affairs can find in this volume.

J. K. MEHTA.

REPORT ON AN ENQUIRY INTO WORKING CLASS FAMILY BUDGET IN AHMEDABAD, by Labour Office, Bombay.

The second enquiry into the working class family budgets in Ahmedabad was conducted by the Labour Office between October, 1933 and January, 1935. A report based on the results of this enquiry has now been published.

The actual investigation was conducted by the Lady Investigators of the Labour Office by house-to-house visits to the homes of the

workers. Information was collected from every 33rd tenement in the predominantly working class localities within the Municipal limits of Ahmedabad. In all 1,310 budgets were collected out of which 1,293 were accepted for tabulation. Of the total number of budgets accepted, 1,070 or 82·75 per cent related to workers employed in the cotton mill industry.

An analysis of the budgets by religion and caste reveals that about 80 per cent of the workers are Hindus and over 18 per cent Muhammadans. Among the Hindus, Patidars, Thakardas, Rajputs, Waghris, Vankars, Dheds, Mochis and Chamars form the majority of industrial workers.

About 24 per cent. of the workers belong to Ahmedabad City and District, nearly 25 per cent belong to Baroda State while a little over 17 per cent. come from other places in Gujarat.

Constitution of the Family.

Of the 1,293 families covered by the present enquiry, 739 or 57·15 per cent were natural families and 554 or 42·85 per cent were joint households. The corresponding percentages in the first enquiry were 64·04 and 35·96 respectively.

... *Literacy amongst the Heads of Families.*

An analysis of the budgets according to literacy amongst the heads of working class families shows that 40·68 per cent. were literate which compares favourably with the general percentage for the whole population, which according to the 1932 municipal census of Ahmedabad was 33·43.

Composition of the Family.

During the last ten years, there has been a slight increase in the size of the average working class family in Ahmedabad, which has increased from 3·86 in 1926 to 4·05 in 1933—35, consisting of 1·43 men, 1·26 women and 1·36 children under 14. In addition, 0·32 persons are dependent on the family although they live away from it.

Workers and Dependants.

Out of the 4·05 persons in the family, 1·58 are earners and 2·47 dependants. Of the 1·58 earners, 1·29 are males, 0·27 females and 0·02 children under 14. While the average number of persons per family increased from 3·87 in 1926 to 4·05 in 1933—35, the number of earners per family declined from 1·66 to 1·58 and the number of dependants increased from 2·21 to 2·47 during the same period. Of the total number of families considered, 704 or 54·45 per cent. contained one wage-earner, 452 or 34·96 per cent two, 115 or 8·89 per cent three, and 19 or 1·47 per cent four wage-earners. A majority of the 1,692 male earners covered by the enquiry were to be found in the age groups 15 to 45 while the female wage-earners were in the age groups 15 to 40. In 72 per cent. of the natural families the head of the family was the only wage-earner. In 21·24 per cent of the families both the head of the family and his wife were earners.

While, however, in the majority of natural families the head was the only earner, the situation regarding joint households was somewhat different. In only 31·41 per cent of the joint households was the head of the family the only earner. In 31·95 per cent of the families the head and another adult male were earners. In 7·76 per cent of the families the head and one adult female were earners. In 7·22 per cent of the families the head and his wife were earners. In the remaining cases the earners were two or more males or females.

Income of the Family.

Over 60 per cent of the 1,293 families fall within the income groups Rs. 30 to Rs. 60. The average monthly income of the family comes to Rs. 46-5-0 to which Rs. 40-12-11 are contributed by men, Rs. 4-0-8 by women, Rs. 0-1-9 by children and Rs. 1-5-8 by supplementary sources.

Expenditure of the Family.

The average monthly expenditure of a family comes to Rs. 40-11-10 which is less than the average monthly income by Rs. 5-9-2. In all the income groups except the income groups "below Rs. 20" and "Rs. 20 and below Rs. 30" the average monthly expenditure is less than the average monthly income. The following table contains a comparison of the group expenditure figures yielded by the present enquiry with those of the 1926 enquiry.

Groups.	Average monthly expenditure. 1926			1933—35		
	Rs.	a.	p.	Rs.	a.	p.
Food	22	12	7	20	1	5
Fuel and Lighting	2	12	4	2	11	4
Clothing, etc.	3	11	6	3	11	6
Bedding and household necessaries ...	0	7	4	0	2	5
House Rent	4	9	11	4	7	6
Miscellaneous	5	0	0	9	9	8
Total Monthly Expenditure ...	39	5	8	40	11	10

Housing.

Of the 1,293 families whose budgets were collected, 986 or nearly 76 per cent were found to be living in one-room tenements and 2·2 per cent of these were sharing a room with other families or single men. Nearly 79 per cent of the working class tenements in Ahmedabad belong to private landlords. The results of the enquiry also show that the average floor space available per person decreased from 47·36 square feet in 1926 to 43·94 square feet in 1933—35 for all tenements and from 38·29 to 37·97 square feet in the case of one-room tenements.

Indebtedness.

Of the 1,293 families studied, 889 or 68·75 per cent were indebted, the average indebtedness per family in debt being Rs. 322-5-7 and the average debt for all families being Rs. 22-10-1. The ratio of indebtedness to monthly income for families in debt comes to 6·96 and for all families it works out to 4·79. The total amount of debt of families covered by the enquiry comes to Rs. 2,86,569 of which 51·53 per cent was incurred for "marriage," 10·64 per cent. each for "funerals, caste dinners and anniversaries" and "sickness and unemployment" and 6·75 per cent for "old outstanding debts." In 83·35 per cent of the cases the security furnished was "personal," in 6·27 per cent of the cases it was "landed property" and in 3·31 cases "ornaments." The rates of interest on loans showed considerable variations but in the majority of cases ranged from 12 to 25 per cent.

B. G. B.

INDIA AS A FEDERATION. by K. V. PUNNIAH, M.A. (HONS.), Lecturer, Andhra University, Waltair. Published by B. G. Paul & Co., Madras. 1936. Rs. 3/8/-.

This book purports to deal with the federal elements in the new constitution under the Government of India Act, 1935. The book has been written on the basis of the proceedings of the Round Table Conference and the report of the Joint Select Committee. The manuscript was ready before the publication of the Government of India Act, 1935, and so we meet with few references to the actual clauses of the statute.

The author has divided the book in three main parts according to the particular aspect of Indian federation which he discusses. Part I deals with the forces leading to the federation. The learned writer has traced the genesis of the idea of federation by going back to the Provincial Devolution Scheme of 1919 Act and the subsequent political developments in the country. One is led to fall in line with his conclusion that "As the Indian Princes are opposed to democracy and the Muslims to majority rule, they find it a fine opportunity to exploit these fears in their own interest. And the Indian federation is the result. In its twofold aspect, territorial and communal, this has an irresistible attraction to British statesmen. It is a big safeguard for the continuance of British connection with India for all time to come, and a permanent way of "cribbing and cabining" democratic Indian Nationalism within the four corners of the constitution." This is the main thesis of his work and he has very ably and intimately exposed the Imperialistic motive underlying the various provisions of the proposed Indian federal scheme. The best part of the book is Chapter III which discusses the motives which prompted the Indian Princes to agree to the federal scheme at the Round Table Conference. His conclusion is that "The Indian states have everything to gain by entering the federation . . . the most important gain is undoubtedly the great improvement which federation brings about in their constitutional position." He has carefully analysed the various advantages which will be secured to

the Indian Princes in the federation. With all this, one is amused to observe the outward reluctance of the Princes to enter it! The record of the Round Table Conference is none too glorious, and Mr. Punniah has exposed the communalism of the Muslim delegates, the selfishness of the Princes and the simplicity of the liberals which permitted them to be duped in their keenness to come back to India with a paltry gain in constitutionalism to the country.

The other two parts deal with the distribution of powers and functions and the nature and value of the federal scheme, the last discussing merely the structure of the federal government. In the course of his analysis of the division of functions, the learned author has exposed the anomaly of federal powers in relation to the States and the Provinces.

This study is very welcome at a time when our country is faced with the prospect of a federation and the various political bodies in the country are waging war against this freak of medieval feudalism, narrow communalism and British Imperialism.

B. P.

REVIEW OF WORLD TRADE, 1936. League of Nations, 1937.

The value of the statistical publications issued by the League of Nations cannot be exaggerated. In a world full of rapid changes of a political and economic character and for people consumed with anxiety as to the future of industry and trade, reliable information regarding developments in international intercourse, is nothing but a boon. A body like the League of Nations alone is in a position to collect and publish such information from year to year and this is a service which has been very properly widely appreciated. The publication under review supplies detailed and comparative statistics relating to world trade during the year 1936 and a few years preceding. Different aspects of that trade are fully dealt with. We have thus put before us not only the value and quantum of world trade but of trade by main groups of articles and trade by continental groups and also by countries. Trade of principal countries in 1936 is likewise analysed and the geographical distribution of trade as influenced by discriminatory measures is also shown.

V. G. K.

INTRODUCTION TO ECONOMICS, by PROF. KRISHNA KUMAR SHARMA, Sanatan Dharma College, Cawnpore. Gautama Bros. & Co., Ltd., Cawnpore. Price Rs. 4/4/-.

In the words of the author, the aim of the book is "to give a clear and concise exposition of the principles of Economics with reference to their application to economic conditions in India" and it "is specially meant for beginners in Economics and covers the syllabus of the Intermediate classes in Arts and Commerce in Indian Universities and of the various Boards of Intermediate Education." It is a good book and has been well written. The topics of the various chapters have

been dealt with clearly and in sufficient detail so as to help the student to acquire a firm grasp of economic theory and its application to Indian conditions. The book, however, appears to be a little too ponderous and heavy for pupils of the Intermediate standard in our universities. One wishes the whole treatment had been less elaborate and simpler. The introductory matter and the numerous definitions with which the reader is confronted at the very threshold, are likely to frighten him into a distaste for Economics which is already notorious for its dullness and dismal character. The arrangement in the different chapters, of the various branches and aspects of Economics, is in some places not very logical. So much has been crammed into the 570 pages of the book that the student may find a very tough job presented to him to digest the varied and heavy fare. The model questions appended to each chapter could well have been omitted.

V. G. K.

We have before us three publications on agricultural marketing in India. (1) Report on the Marketing of Wheat in India, (2) Agricultural Marketing in Northern India, and (3) Agricultural Marketing in India.

Number one is the first of the marketing series issued by the Marketing Adviser to the Government of India. This is the beginning of a series of marketing surveys as recommended by the Royal Commission on Agriculture in India. We are told that "Further reports will issue shortly dealing with other important products such as rice. linseed, groundnuts, tobacco, etc., and with special surveys in regard to Markets and Fairs and Co-operative Trading."

The work of marketing investigations began in 1935 and has since then been carried on throughout the whole of India. The present report is the first fruit of these All-India investigations and attempts to show as concisely and clearly as possible the essential facts regarding the marketing of Indian wheat with the ultimate object of securing better prices for the cultivator.

The Report covers 451 pages and is an exhaustive survey of practically all items connected with the production and utilisation of wheat in this country in all its stages. It vividly brings out that the present system of distribution is, in many directions, very wasteful and expensive and that there is scope for immediate improvement. This report will, let us hope, indicate to all interests concerned, the directions in which they can individually or collectively improve the present system of marketing of Indian wheat.

Agricultural Marketing in Northern India, by S. A. Husain. published by George Allan and Unwin, Ltd., London. Pp. 342.

This book is divided into three parts. Part I deals with general marketing features, such as approach to (1) Marketing Problems, (2) The Indian Economic Background and (3) Marketing Development Outside India.

In Part II the present marketing conditions in India are described and their weaknesses pointed out. It is in this part that the author has devoted considerable space to transportation and the financing of marketing activities. Then he has examined the peculiar marketing conditions of certain simple commodities.

In Part III problems and policies in connection with marketing are critically examined and lines of improvement suggested.

Mr. Husain's work is of a thoroughgoing nature. He sees the picture as a whole. and the interdependence of the several parts. He is impatient enough to long for an appreciable advance forward, and yet patient enough to realise that the advance must be individualistic as well as co-operative and collective. In the light which it throws on the direction and force of efforts that should be made to improve marketing conditions, Mr. Husain's book is of real value. We recommend it to all students of rural economy of India.

AGRICULTURAL MARKETING IN INDIA, by B. B. MUKHERJEE, published by Thacker Spink & Co., Ltd., Calcutta. Pp. 259.

This book is divided into fourteen chapters and covers very much the same ground, of course, for the whole of India, as Mr. Husain's book noticed above. After reading Mr. Husain's book, the book of Mr. Mukherjee falls rather flat, as evidently Mr. Mukherjee lacks that thorough grasp of his subject which is noticeable in every page of Mr. Husain's book.

However the book contains a great deal of useful information, which was not so far available in a handy form. Mr. Mukherjee has rendered a distinct service to the students of marketing organisation in India by bringing all the relevant facts about marketing together. We commend this book for general reading.

B. G. B.

GENERAL WAGE CENSUS OF THE BOMBAY PRESIDENCY—Wages, Hours of Work and Conditions of Employment in the Textile Industries.

REPORT OF THE BOMBAY LABOUR OFFICE

The Labour Office of the Government of Bombay has just published a report on Wages, Hours of Work, and Conditions of Employment in the Textile (Cotton, Silk, Wool and Hosiery) Industries in the Bombay Presidency. This report is the third of a series in connexion with the General Wage Census which was instituted in 1934 and covered every one of all the 709 perennial factories which were working in the Bombay Presidency in that year. The first report, covering nearly fifty thousand workpeople in 221 engineering concerns and an additional twenty-five thousand workers in engineering occupations in other factories, was published at the end of 1935. A second report, relating to a hundred units in the printing industry, was published early last year. The present report deals with over a quarter million workers in nearly 250 textile factories in all parts of the Presidency.

The General Wage Census was held for May 1934 but owing to strikes the census for cotton mills in Sholapur was taken for July and for cotton mills in Bombay for October 1934.

Statistics relating to wages and conditions in the textile (silk, wool and hosiery) industries were collected, and are published, for the first time. As far as the cotton textile industry is concerned, the Labour Office had conducted three censuses into wages and hours of work in cotton mills in 1921, 1923 and 1926 and a Departmental Enquiry into wage cuts and unemployment in the Cotton Textile Industry in 1934. For the purposes of the present Census, the Bombay Presidency was divided into ten territorial areas on the basis of a broad homogeneity of conditions; and the present report, like its predecessors in this series, contains separate figures for each of those ten areas for cotton textile factories and for such areas as had units for the silk, wool and hosiery textile factories. In the textile cotton group thirty-five factories concerned with dyeing and bleaching, heald and reed manufacturing and repairing, etc., and some perennial cotton presses were covered for the first time. Out of the total number of 261,225 workers included in all types of textile factories, 214,451 or 82·10 per cent were men, 45,746 or 17·51 per cent were women and 1,028 or only 0·39 per cent. were children.

Of the total number of 1,028 children employed in all textile units, 1,024 were employed in cotton mills and factories. The areas where most children are employed are Sholapur City and East and West Khandesh. Except one mill in Ahmedabad which employed 22 children as doffers, none of the other cotton mills in the Cities of Bombay and Ahmedabad employ children.

Recruitment and Labour Turnover

The "jobber" still continues to be the chief recruiting agency in the textile industry in most centres and particularly so in Ahmedabad. But mills in Bombay have made a notable advance in the direction of removing the workman from the clutches of the jobber by introducing a system of "decasualisation" by virtue of which substitute employment is offered only to a body of registered hands and permanent vacancies are filled, as far as possible, only from the ranks of such workers as hold substitute registration cards. The total number of persons who secured employment as substitutes in textile cotton mills and factories in the census month was 64,341, the number of permanent hands being 258,921. "Labour Turnover," by which is meant the extent of permanent separations and accessions in the personnel of an industrial establishment, amounted to 2·36 per cent for the census month for all cotton textile mills and factories in the Presidency. If this is worked out to a year, the figure comes to as much as 28·32 per cent per annum. In the silk and woollen industries the extent of labour turnover was more than 50 per cent per annum. This should not be taken to mean that more than half the personnel of an establishment changes every year—the changes may be in a relatively small number of posts; but the total number of hands who change in an establishment every year is considerable.

Payment of Wages

The enquiries in connexion with the General Wage Census were not confined to wages and hours of work alone but a good deal of other information in connexion with wage periods, methods adopted in fixing and calculating rates, changes in wage rates since the pre-war year, superannuation and financial aid, housing and other welfare work, etc., was collected from every factory in a special questionnaire containing over fifty questions. Much of the information so collected has been dealt with in the report under the generic heading "Payment of Wages."

Apart from a small measure of standardisation effected in time rates of wages in unrationalised occupations in mills in Bombay City and for siders and doffers in mills in Ahmedabad there is nothing like standardisation of rates in the textile industries and rates vary widely not only between centre and centre and unit and unit in the same centre but also between individuals in specific occupations in each unit. Very few concerns have consolidated rates of wages and most units still continue to pay what are known as basic rates plus dearness of food or war allowances. Almost all mills in Ahmedabad and Sholapur gave good attendance bonuses to several categories of workers and mills in Ahmedabad paid efficiency bonuses to weavers. Very few mills in Bombay reported payments of bonuses.

In view of the coming into effect of the Payment of Wages Act, the information contained in the report with regard to delays in payment and the granting of advances against earned wages on many of which heavy rates of interest were charged especially in Ahmedabad is now only of historical interest; but the report contains much useful information with regard to wage periods. Outside Gujarat, the English Calendar month is almost universally the period for which wages are calculated and paid. In mills in Ahmedabad City and in certain other centres in Gujarat, most jobbers and all workers in the mechanical, maintenance, watch and ward and general departments are paid monthly. Weavers are paid for *haptas* or periods of fourteen days and spinners for *haptas* of sixteen days. Several mills pay winders and reelers bi-monthly for periods from the 1st to the 15th and from the 16th to the end of the month and many others pay certain groups of coolies weekly. There is no uniformity in the dates for the beginning and the ending of the *haptas* and this makes the selection of one uniform period for a census of wages in the cotton mills in Ahmedabad impossible.

The system of handing over cloth damaged in the process of manufacture to a weaver and of deducting its cost from his wages was widely prevalent in Ahmedabad. The results of the General Wage Census showed that the recoveries by the Ahmedabad mills on this account came to very nearly seven lakhs of rupees per annum. The Payment of Wages Act makes such deductions illegal. The total amount recovered in fines in all units in the textile industries during the census month amounted to over thirty-five thousand rupees and of this over Rs. 21,500 or 61·4 per cent was recovered in cotton mills in Ahmedabad.

Superannuation Benefits

In contrast to the Engineering Industry, very few units in the textile industry have provident funds for their workpeople and, except for the Gokak Mills, no mill had a regular scheme of pensions or retirement gratuities although several mills reported that both discretionary pensions and gratuities were given in deserving cases. In the Gokak Mills there is a system of retirement gratituities applicable to those who joined the Provident Fund before 1st July 1931 equivalent to two years' pay for 20 years' service, 2½ years' pay for 25 years' and three years' pay for 30 years' service.

Shifts, Hours of Work and Leave.

The normal method of work in the textile industries in 1934 was a day shift of ten hours for six days in the week except where exigencies of trade or other reasons necessitated double shift working. In Ahmedabad 28 out of 87 mills worked double shift, wholly or partially, in May 1934 and the number of workers employed on night shift was 7,200. In Bombay City 27 out of 57 mills worked night shift in all or certain departments only and the total numbers of workers employed at night was 20,000. Four mills in the E. D. Sassoon group of mills in Bombay City worked their weaving and certain accessory departments on the basis of three shifts of seven hours each. Nearly ninety per cent of the total number of workpeople employed in all textile factories in the Bombay Presidency had a ten-hour day or a sixty-hour week. The remaining ten per cent who had shorter hours was made up mostly of women winders and reelers and workers in the Mechanics departments of some mills. Only one unit had a short Saturday.

Holidays with pay are granted in the textile industries only to jobbers, watchmen and some of the higher monthly rated categories of workers in some mills. Most concerns do not grant any leave with pay to their workpeople. It is of interest to observe that in the engineering industry, 72 concerns employing nearly 60 per cent of the total number of workers employed in that industry grant leave with pay to most of their employees.

Welfare Work

The report contains details of all welfare work undertaken by textile employers in the matter of the provision of housing; tiffin rooms, rest shelters and canteens; medical aid and creches; facilities for recreation and the utilisation of workers' leisure; vocational training; and education. The total number of tenements provided by all cotton mill employers in the Bombay Presidency amounted to 13,198 of which 11,332 were one-room and 1,866 were two or more roomed tenements. Cotton mills in Ahmedabad lead Bombay and the other centres in the provision made for canteens and tiffin rooms but the pioneer work in the direction of canteens is that undertaken by Messrs E. D. Sassoon & Co. who have made arrangements to supply hot meals at cost price in almost all their mills. This group of mills also runs a hostel for poor women workers and the charges for boarding and lodging are Rs. 6

per month for each adult and Re. 1 to Rs. 2 per month, according to age, for each child.

All mills in Sholapur and all mills except four in Bombay had provided dispensaries under the charge of part-time doctors and full-time compounders. In Ahmedabad only 46 out of 87 mills and in the other areas 17 out of 30 mills had made provision for medical aid. Only eleven mills in all made deductions from the workers' wages for medical attendance. It is noteworthy that six mills had provided hospitals for the treatment of in and out patients of both sexes and that most of these had maternity wards in addition. One hundred and nineteen units in all had provided creche facilities for the care of the young children of their women workers. Very few concerns made provision for workers' education and for the education of their children but most units employ apprentices and these are given adequate training. Only 34 out of a total number of 246 concerns in the textile industries had made some provision for the recreation of their employees. In most cases this took the form of providing playing fields for cricket, hockey and football—equipment being provided at the cost of the mill. Some mills had gymnasia and wrestling pits, libraries and reading rooms, and one or two mills theatres in addition.

Rates of Wages.

The report contains a detailed account of broad movements and changes in wage rates between 1914 and 1934 but owing to the existence of both widely varying rates and a wide diversity in the wage periods and in the methods adopted in arriving at each worker's final wage it was not possible to give any useful information relating to actual rates. The report however states that as between 1926 and the General Wage Census month wages had fallen by 16 per cent in cotton mills in Bombay City, and by 20·5 per cent. in cotton mills in Sholapur. In Ahmedabad wage levels in May 1934 were, on the whole, 4·4 per cent higher than in 1926. But whereas there have been no general reductions in wage rates in cotton mills in Bombay and in Sholapur since the dates when the Census was held for these two centres, wages in all cotton mills in Ahmedabad were by virtue of an agreement reached between the Ahmedabad Millowners' Association and the Textile Labour Association at Delhi in January 1935 to be uniformly reduced by 6¼ per cent for all time and piece workers, except weavers, whose earnings fell below Rs. 41-4-0 for 26 working days on the basis of a ten-hour day. The fall in the earnings of piece-rated workers as the result of the introduction of the 54-hour week from the 1st January 1935 was made up in mills in Bombay partly by greater efficiency in production and partly by an increase in the dear food allowance to 40 per cent. in those mills where it had been reduced to below this figure. In Ahmedabad weaving efficiency was already very high when the reduced hours came into effect and the weavers and other piece-rated workers were not able to make up more than a third of the time lost. The wages of piece workers in the Ahmedabad cotton mills are therefore reducible by a further 6½ per cent on account of the reduction in hours. The conclusion reached in the Report is that whereas the wage census results for Bombay and

Sholapur may be considered to hold good to-day, the figures for all averages of earnings in the cotton textile industry in Ahmedabad are reducible by one anna in the rupee for time workers and by two annas in the rupee for piece workers.

Earnings

The report contains numerous tables setting out figures for the average percentage attendance, average daily earnings and average monthly earnings for all monthly rated groups for all occupations in the textile industries in each of the ten territorial areas into which the Presidency was divided for purposes of the census. Numerous summary tables have been specially prepared for all the more important occupations and full details regarding variations from normal methods especially in cases where "rational" methods have been introduced have been both given and analysed. In addition to regional averages, presidency averages have also been worked out and full information has been given regarding average percentage attendance and average percentage absence. The information contained in the report regarding earnings does not lend itself to a brief summary.

The figures given for average earnings in the report relate to the periods for which the census was held and no adjustments have been made for changes in rates effected since 1931. The changes effected since the census have been indicated in the report and if these are applied to the census figures, the earnings position to-day for some of the more numerically important occupations in the three important centres of the cotton textile industry would be as follows:—

Two Loom Weavers (Men—Piece): Average Daily Earnings—Bombay Rs. 1-6-1; Ahmedabad Rs. 1-10-10; Sholapur Rs. 1-5-4.

Single Side Siders (Men—Time): Bombay 13 annas 7 pies; Ahmedabad 15 annas 5 pies; Sholapur 9 annas 8 pies. Time rated women siders earned about the same wages as men in Bombay and in Ahmedabad and about an anna and a half per day more than men in Sholapur.

Doffers (Time): Bombay, men 10 annas 4 pies, women 9 annas 9 pies: Ahmedabad, both men and women 10 annas 6 pies; Sholapur, both men and women 7 annas 6 pies.

Reelers (Women—Piece) earn a daily average wage of 10 annas 2 pies in both Bombay and Ahmedabad and 5 annas 10 pies in Sholapur.

Grey Winders (Women—Piece) earn between nine and a half to ten annas per day in Bombay and Ahmedabad and 5 annas 6 pies per day in Sholapur.

The Report contains 265 pages and is priced Annas Twelve. Copies can be obtained from the Government Book Depot, behind Charni Road Station, Off Queen's Road, Bombay.

B. G. B.

AGRICULTURE AND ANIMAL HUSBANDRY IN INDIA, 1935-36. Issued under the authority of the Imperial Council of Agricultural Research, Delhi. 1937. Pp. vi—411. Price Rs. 4-10-0.

This is a consolidated report of the work done for the improvement of agriculture and livestock in India, during the year 1935-36, by various official and non-official bodies, under the supervision and control of the Imperial Council of Agricultural Research. The report deals with all the aspects of agricultural development and is a veritable mine of up-to-date information on the subject.

URBAN HANDICRAFTS OF THE BOMBAY DECCAN. by N. M. Joshi, M.A. Gokhale Institute of Politics and Economics, Poona. Publication No. 5, 1936. Price Rs. 2-8-0.

This study was originally submitted as a thesis for the Master of Arts Degree of the University of Bombay. It has been published by the Gokhale Institute because the investigations embodied in it were carried out at the Institute and because they and the region to which they relate are those in which the Institute is interested.

The purpose of the publication is to give the present position of the urban handicrafts of the Bombay Deccan and suggest ways for its improvement. The author begins with a discussion of the economies of handicraft and an explanation of the conditions that have obtained in India. His conclusion here is that "the importance of handicraft in Indian Economic lift cannot be under-rated."

Then he narrates the history of the urban handicrafts of the Bombay Deccan from 1880 to 1930. Some selected handicrafts are treated in this connection. They are the textile, metal, leather, paper and calico printing handicrafts.

Next, the author describes the present economic position and organisation of the handicrafts and gives an idea of their future possibilities.

This and the historical review bring to light certain problems of the Deccan handicrafts which demand solution. Before, however, suggesting a solution, Mr. Joshi passes in review the state policy in India towards the handicrafts. He points out what has been done specially in the Bombay Deccan, by the Central and Provincial governments to help the handicrafts and what is being attempted in foreign countries. His conclusion is that what the State in India has done is "a mere drop in the ocean." As contrasted with this "the state is most active in foreign countries, where handicraft survivals are considerable."

The problems that face the Deccan urban handicrafts are gathered by the author under two main heads:—(1) those that pertain to the reorganisation of the handicrafts with a view to meeting outside competition and (2) those that concern the improvement of the economic condition of the handicraftsmen. These are discussed under the sub-heads, the former: (i) reduction of the cost of production, (ii) changes in the type of production, (iii) rationalization of the handicrafts and

improvement of their business methods, and (iv) organisation of the handicraft-guild or chamber; and the latter—(i) industrial efficiency, (ii) wage and working conditions, (iii) heavy indebtedness, and (iv) personal drawbacks.

For tackling all these problems sound suggestions are made.

The book is an excellent piece of research. It is as comprehensive and detailed as the author could make it. That it has been published by the Gokhale Institute is a sufficient proof of its being up to the mark.

G. D. K.

INDIAN ECONOMICS, Volumes I and II, by G. B. JATHAR and S. G. BERI. Oxford University Press. 1937. Price Volume I Rs. 5 and Volume II Rs. 6.

This work first appeared in 1928. It has now run into Volume I the fifth, and Volume II the fourth edition. These editions bring up to date the facts and figures of Indian Economic activity. The previous editions came out in 1933. Since then important developments took place in every sphere of the economic life of the country. They have been noted in the current volumes. This, of course, has meant additions to and re-arrangement of the chapters. Consequently the new volumes are bigger than their predecessors.

The changes effected in the work affect Volume I much less than Volume II. Some of them might be noted. In Volume I, Chapter III on 'Population' has been revised in the light of the latest *Census Report* of 1931. In Chapter IV the decline of wheat exports, the grant of protection to Indian wheat, the rapid growth of the sugar industry under protection, the regulation of tea exports under the International Tea Restriction Scheme, the Indo-Japanese Trade Agreement, etc., have been noticed. In Chapter VIII the new provincial marketing organization has been described. In Chapters IX and X the rural debt conciliation schemes in the various provinces and the present position and future prospects of the cooperative movement have been discussed and the sections on land mortgage banks enlarged. And in Chapter XI the village uplift movement has been noticed.

In Volume II, Chapter II on 'Imperial Preference' has been replaced at the end of the volume by a new chapter entitled 'Ottawa and Other Trade Agreements.' In Chapter III 'Industrial Labour' recent labour legislation has been found a space. In Chapter IV 'The National Dividend' the results of the Bowley-Robertson Enquiry have been given. In Chapter VI 'The Trade of India' the world economic depression and its effects on Indian foreign trade have been discussed. In Chapter VIII 'Currency and Exchange' the question of gold exports, the agitation against the sterling link and in favour of devaluation have been noted. In Chapter X 'Banking and Credit' the constitution, functions and working of the Reserve Bank of India and the relation between the Reserve Bank and Indian agricultural credit have

been given. In Chapter XI 'Finance and Taxation' the question of federal finance has been examined. etc., etc.

The work is undoubtedly one of the best on Indian economics. It has been adopted as a text-book in practically all Indian Universities for the B.A. and M.A. courses in Economics. Its merits fit it admirably for that purpose. It provides full and detailed information on all economic topics relating to India. The style is lucid and simple. The facts and figures are authoritative and their arrangement is excellent. Above all the discussions are free from bias. The very fact that it has in a short space of about eight years gone through so many editions speaks a good deal for its popularity.

G. D. K.

LAMENT FOR ECONOMICS, by BARBARA WOOTTON. George Allen and Unwin. Ltd. 1938. Price 6s. net.

The plight of economics to-day is awfully deplorable. The problems of the world are mostly economic or hinge on the economic, but economic theory is of no help in effecting their solution. Economics, therefore, commands little respect. People say it is no use and the economist suffers from an "agonizing sense of shame."

Why should economics find itself in such a predicament and how can the situation be improved if it can at all be improved? These are the questions which Mrs. Wootton attempts to answer in her present book—'Lament for Economics.'

She states the main charges that are to-day laid at the door of the economists and goes into them carefully and in detail with a view to finding out the element of truth in them. The charge-sheet is as follows:—Economics is regarded as no use because it is unintelligible to the plain man; because the economists cannot agree; because they ignore reality; and lastly, because under pretence of scientific enquiry they advocate biased policies.

Her examination of these accusations leads her to the conclusion that there is a good deal of justification for them. About the first, she says, economic analysis is these days becoming more and more encumbered with technicalities or abstruse and abstract arguments which can be followed only by the initiated. The plain man who cannot understand them at all gives up the study in disgust saying it is of no service to him.

With regard to the second charge—economists cannot agree—she reasons that if by this is meant that there is no body of theory upon which the economists are agreed then it does not hold, for there is "a *corpus* of doctrine," known as 'marginalism' or 'equilibrium economics'—"the validity of which, within its own assumptions, would hardly be denied by any professional economists." But it stands when we come to think of the advice which they give in concrete economic situations. That advice is never the same in the case of any two of them.

With regard to the third charge—the economists are not in touch with reality—she points out:—Economics is the study of the distribution of scarce means between alternative uses as revealed in *markets*—that is, "in conditions where the attempts of independent units to dispose their scarce means between the alternatives of their choice are embodied in objective movements of value, demand and supply, as expressed in monetary terms." Now, it is true that approximations to such markets are found in the actual world. But their smooth working is very much hampered and their field has become very much circumscribed by a number of factors, such as, the complexity and uniqueness of concrete economic situations, and the kinetic nature of the economic world, and the emergence of monopoly and Government interference. The result is that economic theory which is based upon the hypothesis of perfectly competitive markets, fails miserably when called into service for the solution of the economic problems of the world. The gap between theory and practice is very wide indeed.

In respect of the fourth charge—the economists are partisan advocates of particular social policies,—she argues—Economics pretends to be a 'positive' study, but the whole reasoning of the economists is underlain with the concept of a norm by which the more economical is to be distinguished from the less economical behaviour. The norm is the market equilibrium towards which market processes move. It is a state in which equi-marginal returns are realized. Once this state is reached "further movement *ceases, because the ideal has been attained and there is nothing left to strive for*.... The state of equilibrium is thus identical with the optimum, or supremely, economical, distribution of resources in relation to any given system of ends; and, in so far as economical action may be identified with intelligent action, this state of equilibrium becomes not merely the objective which people *do*, but also that which they *ought to*, set before them." The positive market analysis of the economists thus becomes implicitly more than explicitly identified with what is normatively admirable and they expose themselves to the charge that they are the advocates of the market mechanism—the economic system that has obtained in Western Europe and North America—or that, as she puts it at another place, they are "the paid sycophants of capitalism."

So, all the accusations that are levelled at the economists being for all practical purposes well-founded there is no wonder that economics finds itself in the sorry plight which has come to be its lot. Is there no help for it, cannot the situation be mended? Mrs. Wootton is of the opinion that if by the "economists" is meant professional students of economics she cannot hold out any hopes for the future, but if the term is re-defined as "students of social welfare" then there is no need to despair. In other words, she wants the economists so that their work might prove of use to turn their energies to the development of an art of political economy, which in time to come will be on a par with the art of medicine. "If," she says, "anything of substantial untility is to come out of the economist's work, he must be allowed to poke his nose into questions of the quality of social ends, and of the means by which they are formulated." She lays down certain lines along which research could be carried. They are:

"(1) realistic applications of existing economic analysis within the imperfect market economy of contemporary experience, (2) studies of existing social situations and trends; (3) enquiries into the nature of social ends in modern communities, and the means of formulating these; (4) research into the technical problems connected with the satisfaction of social ends; and (5) attempted formulation of plans of social betterment." In regard to these it may however be noted that she does not think that the economists have a great *rôle* to play, they have simply some *rôle* to play.

The book is well worth reading. It is an important contribution towards the development of economic thought. Its reasoning is cogent, its criticism is telling and its constructive proposals are helpful.

G. D. K.

AN INTRODUCTION TO ECONOMIC ANALYSIS AND POLICY, by J. E. MEADE. The Clarendon Press. 1936. Price 10s. net.

This book is primarily meant to serve as an introduction of economics. It explains the whole economic theory without taking technical knowledge for granted and makes full use of the recent developments of the subject. The theory is expounded with direct reference to the economic problems of the world and at each point its contribution to the solution of those problems is clearly indicated.

The economic problems that are handled in the book are:—Unemployment—Competition Monopoly and Planning—The Distribution of Income—The Supply of the Primary Factors of Production. The author says rightly that if these problems are properly solved each economic system will be able to provide the highest possible standard of living. What does their proper solution connote and how is that to be effected in the light of economic analysis is discussed in the first four parts of the book.

These four parts assume that each economic society is self-contained. But no economy is self-contained in the real world. Each country has a number of contacts with every other. The international aspects of the above problems therefore are not to be lost sight of. They are studied in Part V of the book which is headed International Economic Problems.

The book is a very good addition to the literature on economic theory. Its chief merit is that it combines the explanation of economic analysis with the discussion of concrete economic issues over the whole field of economic enquiry. It is perhaps the first in the line. There are in it a number of tables and charts that are of great help in understanding the discussions to which they relate. The style is clear and fairly easy.

G. D. K.

EARLY BRITISH ECONOMICS, by M. BEER. George Allen & Unwin, Ltd., 1938. Price 8s. 6d. net.

This book traces the development of economic thought in the British Isles from the thirteenth to the middle of the eighteenth century. The thought throughout the period was predominantly commercial in its character. It is treated under three heads:—(1) the thought of the Schoolmen, (2) the age of Mercantilism, and (3) transition of Liberal Economics.

The British schoolmen assimilated the doctrines of the fathers and the canonists as regards property, trade and commerce and money and interest. Those doctrines regarded all these as sin. This would not suit the conditions under which the schoolmen lived—growth of town life and of trade and commerce. The schoolmen had to reconcile the Patristic theory with the realities of the situation. They did that with the aid of dialectic or on ground of social utility. Which means they justified private property, carrying on trade and money-lending at interest if these conformed to certain conditions. The way was thus prepared for Mercantilism.

The age of Mercantilism falls under two periods:—(1) from Edward I or more properly Edward III to Elizabeth; (2) from the Stuarts to the accession of the Hanoverians. The central idea throughout both these periods was the same—to get treasure in the country through foreign trade which alone could bring it. The methods, however, by which that objective was to be gained were different. In the first period the Crown resorted to bullionist ordinances and statutes for the purpose. In the second period, the merchants attained the aim with the policy of balance of trade—which always meant a favourable balance. The bullion ordinances were based on the principle of commutative justice, that is, equality of exchanges and no gain on money. The sanction behind them was the Canon Law. But in 1550 the Canon Law was abrogated; the merchants had grown in power and began to control trade. The theory of the balance of trade was developed and held for all intents and purposes till the end of the period.

The transition to new economics began with the Restoration in 1660. The influences that were at work were:—(1) the continued growth of manufacture; (2) the development of credit, banking and the introduction of paper money; (3) the demand for greater freedom of trade; (4) the spread of the ideas of natural liberty and laws of nature working for the happiness of mankind. The consequences were that some of the most doctrinal elements of Mercantilism began to be challenged, the emphasis shifted from the marketing of commodities to the production of marketable commodities in manufacture and agriculture and foundations for the economics of production were laid. About 1750 all the materials for the building up of a new economics were at hand. It only needed a master mind to utilize them for that purpose.

The book is an dmirable piece of research work. It is probably the first of its type that gives in a concise form within the range of 242 pages the development of economic theory in Britain during the five or six centuries to which it has reference. All the authors that contri-

buted their quota to that development are laid under obligation—by devoting special chapters to them—The treatment at every stage takes full note of the historical setting—the political, commercial, and social and ethical conditions that were responsible for ousting one particular theory and ushering in another. The economic problems of each period and speculation on them are clearly stated. The style is simple, lucid and delightful.

G. D. K.

The Managing Editor acknowledges with thanks the under-mentioned books sent to him for purposes of review:—

1. Foreign Balances—by Paul Einzig, Published by Macmillan & Co., London. W. C. 2. 1938. Pp. 186. Price 8s. 6d. net.
2. An Introduction to Money—by W. A. L. Coulborn, Published by Longmans, Green & Co., London, E. C. 4. 1938. Price 6s.
3. The Outlook for Gold—by Sir Charles Morgan-Webb. Published by George Allen & Unwin, Ltd., London. W. C. I. 1938. Pp. 151. Price 4s. 6d. net.
4. Confessions of an Economic Heretic—by J. A. Hobson. Published by George Allen & Unwin. Ltd., London. W. C. I. 1938. Pp. 217. Price 5s. net.
5. The World's Economic Future—by J. B. Condliffe, B. Ohlin, E. F. Heckscher, and S. de Modariaga. Published by George Allen & Unwin. Ltd., London. W. C. I. 1938. Pp. 131. Price 4s. 6d. net.
6. The Chamberlian Tradition—by Sir Charles Petrie. Published by the "Right" Book Club, 10, Soho Square, London, W. 1. 1938. Pp. 287.
7. The Crumbling of Empire—by M. J. Bonn. Published by George Allen & Unwin. Ltd., London, W. C. I. 1938. Pp. 432. Price 15s. net.

The Managing Editor acknowledges with thanks the under-mentioned Reports and Publications sent to him:—

1. Planning Prosperity: Is it possible?—by Sir M. de P. Webb. Price Re. 1. Published by The Daily Gazette Press, Ltd., Karachi. 1938.
2. Draft Customs Nomenclature. Vols. I & II. Published by the League of Nations, Geneva. 1937.
3. Monetary Review. Published by the League of Nations, Geneva.

4. Commercial and Central Banks. Published by the League of Nations, Geneva. 1938.

5. Statistical Year Book, 1344 Fasli (1935 A.D.), by Mazhar Husain. Published by Government Central Press, Hyderabad, Deccan.

6. Pottery for Health and Pottery as a Cottage Industry, by R. V. Lakshmi Ratan. (Senior).

7. Bennial Report of the Board of Economic Inquiry, Punjab. Published by the Board of Economic Inquiry, Punjab, Lahore.

8. Die Preispolitik im Vierjahresplan, by Josef Wagner.

9. The Effect of Twist on the Strength and Length of Cotton Fibre, by Harirao Navkal and Nazir Ahmad. Price As. 8. Published by Technological Laboratory, Matunga, Bombay.

10. Report of the Department of Works and Local Government for the year ended 30th June, 1936. Government Printer, Sydney, New South Wales. 1937.

11. Large Industrial Establishments in India, 1935. Published by Manager of Publications, Government Publications. Delhi. Price Rs. 5/4- or 8s. 6d.

12. Educational Reconstruction. Published by Vora & Co., Publishers, Ltd., Bombay 2. 1938. Pp. 207. Price Rs. 1/4/-.

13. Gandhian Way—by J. B. Kripalani. Published by Vora & Co. Publishers, Ltd., Bombay, 2. Pp. 183.

INDIAN ECONOMIC ASSOCIATION

The Twenty-second Annual Conference of the Indian Economic Association will be held at Nagpur under the auspices of the Nagpur University from the 29th to the 31st December, 1938. The following subjects have been selected for discussion at the Conference:—

1. Theory of Interest.
2. Debt Legislation—History and Recent Developments.
3. Commercial Agreements with special reference to India.
4. Current Topic.

Members of the Economic Association are requested to contribute papers on any one of these subjects. It was decided by the Executive Committee that the members of the Association be requested to send 250 printed copies of the paper they submit to the Conference to the Honorary Local Secretary so as to reach him on or before the 1st December, 1938. This was intended to ensure all members of the Association getting copies of the paper sent to the Conference. Therefore, may I request members to be good enough to send 250 printed copies of their paper to Prof. Sen Gupta, Morris College, Nagpur, so as to reach him not later than the 1st December, 1938?

It is particularly requested that the papers should not exceed in length ten pages of the Journal. The attention of members is invited to the rule that in case a paper exceeds ten pages in length, the additional cost of printing the extra pages will be charged to the author, who will be expected to make an advance deposit for the same. Members are requested to intimate changes in address as soon as possible.

B. V. Narayanaswamy.

SPECIAL ESSAYS AND RESEARCH WORK SUBMITTED TO THE ECONOMICS DEPARTMENT OF THE ALLAHABAD UNIVERSITY

Most of the Universities award the M.A. degree by thesis or examination. The University of Allahabad has combined the two systems to better advantage in awarding the degree of Master of Arts in Economics. Besides the usual papers, every student has to submit a special Essay on a subject approved by the Head of the Department. This system was introduced about twelve years ago and has worked very well. It not only trains the student in the field of research (of course, on a small scale) but helps the Department of Economics in studying current economic problems. The essays have been written on subjects covering a wide range of the field of Indian and General Economics. They vary in size. Many of them cover over one hundred typed foolscap pages. The Department of Economics has not been able to get the essays published, owing to financial stringency. Their true worth can be known by general readers only when these are presented in printed form. A list of these essays is appended herewith.

S. K. RUDRA.

1. AGRICULTURE AND ALLIED PROBLEMS

1. Surdarshan Lal Pande:
   Improvements in Indian Agriculture.
2. Durga Prasad Arora:
   Theory of Rent in relation to Population.
3. Ram Narain Gupta:
   Sources of Capital for Agricultural Improvements.
4. Hrishikesh Chandra Roy:
   The Cattle Problem in India.
5. C. L. Agarwal:
   Poverty of Indian Agricultural Classes.
6. Rafique Ahmad Khan Ghauri:
   Land Tenure in Oudh.
7. Rajendra Lal Garg:
   Economic Life of My Village.
8. Ripu Daman Paul:
   Economic Causes of Famines in India.
9. S. P. Mehta:
   Immediate Possibilities of Improvements in Agriculture.
10. Udai Narain Tiwari:
    A Study of Scatteredness and Smallness of Holding in Three Villages of Ballia District.
11. Debi Prasad Uniyal:
    Crop Distribution in India.

12. Lalit Mohan Pant:
Certain Problems of the Indian Agriculturist.

13. Shyama Dat Pant:
Agricultural Credit and Credit Facilities.

14. Jagmohan Swarup Gargya:
Credit Survey of village Jhamka. District Bulandshahr.

15. Om Prakash Saksena:
Agricultural Borrowing for Purposes of Production.

16. Bhawani Dat Uprety:
An Economic Survey of village Pandilla, District Allahabad.

17. Khetra Mohan Chaudhri:
Credit Survey of village Malak Chowdri, District Allahabad.

18. Ram Naresh Lal:
Agricultural Survey of village Nakhara, District Mirzapur.

19. Om Prakash Kushchal:
Credit Survey of village Kandhla, District Muzaffarnagar.

20. Buddhi Prakash Jain:
Essay on Size and Nature of Agricultural Holdings in the village of Malhipur of Saharanpur District.

21. Umrao Singh:
Agricultural Depression in India.

22. Damodar Singh:
Land Revenue and Its Problems

23. Shiam Manohar Misra:
The Agricultural Practice in the U.P.

24. Bishwanath Mukerjee:
The Cattle Problem in India.

25. Shyama Dat Pant:
An Economic Survey in village Hatnur. District Garhwal.

26. Avadh Pat Rai (Research Scholar):
Land Tenures in Northern India.

27. Buddhi Prakash Jain (Research Scholar):
Agricultural Holdings in the U.P.

28. P. A. Andrews (Research Student):
A Survey of Land Values in the U.P.

29. Shambu Dayal Singh (Research Student):
Administration of Famine Relief in India.

30. Devi Sahai Srivastava (Research Student):
The Cattle Problem in India.

31. N. C. Banerjee (D.Litt. Scholar):
Family Budget of Farmers in a village of Jhansi District.

32. B. G. Bhatnagar (Research Scholar):
Ideal System of Land Tenure.

33. D. S. Dubey (Research Scholar):
The Way to Agricultural Progress.

2. COOPERATION

1. Sheoraj Bahadur Mathur:
   Agricultural Cooperative Credit Societies in India.
2. Shri Prakash Pande:
   Cooperative Movement in Bengal.
3. T. C. Jain:
   Cooperative Movement in the Punjab.
4. S. C. Shukla:
   Cooperative Movement in the U.P.
5. Brij Basi Lall Gaur:
   Cooperative Movement in the C.P. and Berar.
6. Sunder Lal Chaturvedi:
   Cooperative Movement in Bihar and Orissa.
7. Shri Ram Gupta:
   Cooperation in India.
8. Kalika Prasad Mohilley:
   Cooperative Movement in the Madras Presidency.
9. Shanti Prasad Shukla:
   Cooperative Movement in Bombay.
10. Sabitri Bala Mukerjee (Miss):
    Views of Different Authors on Cooperation in India.
11. Kanwar Kishan Shah:
    Cooperation in the Punjab.
12. Rabindra Nath Lahiri:
    Cooperative Movement in India with Particular Reference to the U.P.

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3. CYCLICAL FLUCTUATIONS

1. Triloki Nath Sharma:
   Causes of Crises and Depression.
2. Shiam Bahadur:
   Cyclical Fluctuations in the Produce of India.
3. Syed Manzoor Husain:
   Cycles in the Sea-Borne Trade of India.
4. Avadh Pat Rai Srivastava:
   Financial Fluctuations in India, 1866—1928.
5. Rama Shankar Vidyarthi:
   A Study of Business Cycles in India.
6. Diptindu Bhattacharya:
   Cyclical Fluctuations in the Prices of Wheat, Rice, Cotton, and Coal in India.
7. Reoti Raman Mathur:
   A Study of Business Cycles in India, 1866—1928.
8. J. K. Mehta (Research Scholar):
   Periodicity in Grain Prices in the U.P.

4. INDIAN ECONOMIC THOUGHT

1. Chatur Behari Mathur:
   An Essay on the Economic Thought of Mahatma Gandhi.
2. Prem Narain Darbari:
   Economic Views of Mr. K. T. Shah.
3. Shiva Shankar Lal Rohatagi:
   A Critical Study of the Works of Messrs P. A. Wadia and G. N. Joshi.
4. Gobind Saran Srivastava:
   Views of Dr. P. N. Banerjee on Indian Economics.
5. Shyam Narain Nigam:
   History of Economic Thought in India.
6. E. S. Buck:
   A Critical Review of Prof. V. G. Kale's Contribution to Indian Economics.
7. Ajit Kumar Roy:
   History of Indian Economic Thought on Indian Currency.
8. Nawal Kishor Chadhha:
   Gandhism—An Economic Study.

5. INDUSTRIES

1. Mehmood Husain:
   Methods of Developing Mechanical Industries in India.
2. V. K. Natoo:
   Cottage Industries in India.
3. Ahsan Ali:
   Prospects of Oil Industry in India.
4. Manmohan Swarup Bhatnagar:
   The Wood-Carving Industry of Saharanpur.
5. Ram Gopal Sharma:
   Ebony-Carving Industry at Nagina, District Bijnor.
6. Anant Prasad Mathur:
   The Present Position of Cottage Industries of the U.P. and Their Future Prospects.
7. K. N. Gupta:
   Indian Industrialism.
8. Ramesh Chandra Srivastava:
   Development of Railways in India, 1919--29.
9. Gajadhar Prasad Badawa:
   The Glass Industry.
10. Kailash Behari Mathur:
    Need of Protection to Indian Paper Industry.
11. Kripa Shankar Pathak:
    Need of Protection to Sugar Industry in India.

12. Tara Dutt Nautiyal:
    The Cement Industry in India.
13. Munindra Bahadur:
    Sugar Industry in India and Its Prospects.
14. K. P. Sinha:
    The Jute Industry.
15. Ratan Shankar Mehta:
    A Statistical Review of the Sugar Industry.
16. Prakash Chandra Jain:
    The Khandsari Method of Sugar Production in the U.P.
17. P. N. Chatterjee:
    Development of Railways in India.
18. Prem Prakash Rastogi:
    Horn-Comb making in Sambhal.
19. S. D. Kale:
    Cottage Industry—Its Scope and Possibilities in India.
20. Shiam Manohar Misra:
    Sugar Industry in India.
21. Amolak Rai Chopra:
    The Benares Silk Industry.
22. Chunni Lal Paul:
    Shellac Industry at Mirzapur.
23. Devendra Sen:
    Importance of Cottage and Home Industries in Rural Economy.
24. Krishna Swarup Bhatnagar:
    Carpet Industry in District Bhadohi, Benares State.
25. Prakash Narain Mathur:
    Bahjoi Glass Works.
26. Krishna Saran Kamthan:
    The Match Industry in India.
27. Krishna Bihari Lal:
    Protection to "Rolled" Steel Industry in India.
28. J. K. Mehta (Research Scholar):
    An Economic Survey of the Potters of Allahabad.
29. V. K. Natoo (Research Scholar):
    The Cobblers and Shoemakers of Allahabad.
30. Shanti Prasad Shukla (Research Scholar):
    Financial and Credit Machinery of Small Urban Industries of Allahabad City.
31. Rameshwar Das Agarwal (Research Scholar):
    The Sugar Industry in the U.P.
32. Anant Prasad Mathur (Research Student):
    Cottage Industries in the U.P.
33. Murli Dhar Joshi (Research Scholar):
    Survey of Some Cottage Industries in the City of Allahabad.

6. LABOUR PROBLEMS

1. Sardar Singh:
   Factory Legislation in India.
2. Kumar Chandra Saksena:
   Labour and Wage Payment in India.
3. Subodh Chandra Bose:
   Factory Legislation Concerning Child Labour in India.
4. Ras Behari Lal Shah:
   Child Labour in Indian Factories.
5. P. R. Tare:
   Labour in Indian Agriculture.
6. Dhuru Singh Goel:
   The Efficiency of Indian Labour.
7. Kalka Prasad Bhargava:
   An Enquiry into the Conditions of Workers in the Printing Presses of Allahabad.
8. Rup Narayan Shivapuri:
   The Problem of Health in India among the Industrial Classes with Special Reference to the U.P.
9. F. J. Gandhi:
   The Basis and Methods of Industrial Remuneration.
10. B. L. Khanna:
    An Investigation into the Housing Condition among Industrial Workers at Manauri. Lucknow, Allahabad, Cawnpore, Ahmedabad, and Bombay.
11. Rameshwar Dayal:
    Social Welfare Work for Industrial Workers in Cawnpore City in 1932.

12 & 13. Pashupati Mukerjee, Motilal Mehrotra:
    An Analysis of the Conditions that effect the Standard of Physique of the Working Class in India and the Way to Improve Them through Welfare Works.

14. Vimla Harlekar (Miss):
    Industrial Unrest in India.
15. Kestin James:
    Trade Unionism in India.
16. Ramagya Singh:
    Growth of Trade Union Movement in India.
17. Pitambar Das Jain:
    Labour Legislation in India.
18. Hazari Lal Srivastava (D.Litt. Scholar):
    Economics of Industrial Accidents, Fatigue and Diseases with Special Reference to India.
19. Pashupati Mukerjee (Research Scholar):
    Labour Conditions in Some Cottage Industries in the U.P.

20. G. L. Nanda (Research Scholar):
 Some Aspects of Indian Labour Problem.

7. MARKETING

1. Jwala Prasad Dubey:
 The Marketing of Farm Products in India.
2. R. C. Pande:
 Grain Marketing in Allahabad.
3. Ishwar Chandra Gupta:
 Wheat Marketing at Ghaziabad.
4. Parmeshwari Prasad Bhatnagar:
 Wheat Marketing at Hapur.
5. Prescott Kenneth Roy:
 Wheat Marketing at Chandausi.
6. Shiva Prasad Singh:
 Sugar Marketing in the U.P.
7. V. N. Langar (Research Student):
 Markets and Fairs in the U.P.
8. Mahesh Prasad (Research Scholar):
 Economics of Growing and Marketing Guavas in Allahabad district.

8. THE OTTAWA AGREEMENT

1. Kanti Swarup Mehrotra:
 The Effect of Ottawa Agreement on Iron and Steel Industry of India.
2. Ramanuj Pandey:
 The Ottawa Agreement and the Motor Trade of India.
3. J. E. M. Drummond:
 Probable Effect of the Ottawa Agreement on Indian Tea Industry and Trade.
4. T. N. Sinha:
 Raw Cotton and Cotton Twist and Yarn and the Ottawa Agreement.
5. Birendra Prasad Jain:
 Ottawa Agreement and India's Foreign Trade in Leather Goods.
6. Jugal Kishore Pande:
 Probable Economic Effects of Imperial Preference on India with respect to Imported Cotton Piece-goods.
7. Raziuddin Ahmad:
 The Ottawa Agreement and Preference on Wheat.
8. Ashwini Kumar Dube:
 Imperial Preference to Jute in the Ottawa Agreement.
9. Hari Shankar Bhargava:
 Probable Economic Effects of the Ottawa Agreement on the Oil-seed Trade of India.

10. Mahabir Prasad Tripathi:
    The Ottawa Trade Pact and Indian Rice Trade.
11. V. N. Langar:
    The Ottawa Agreement and Indian Trade.
12. Shripat:
    The Effect of the Ottawa Agreement on the Foreign Trade of India.
13. V. N. Langar (Research Student):
    The Probable Economic Results of the Ottawa Trade Agreement.

9. GENERAL

1. Devi Shankar Misra:
   Socialism in India.
2. B. S. Sethia:
   Some Aspects of the Economic Relation Between Great Britain and India.
3. Sultan Singh Chauhan:
   The Bhil Community of Central India.
4. Bishambhar Dayal:
   An Investigation into the Problem of Unemployment in India, As It Exists Amongst Educated Middle Classes.
5. Mannu Lal Bagla:
   Some Features of Indian Society and Their Bearing on the Economic Life of the People.
6. Bisheshwar Nath:
   The Panchayat System in India As a Basis of a Social Reconstruction on the Lines of Guild Socialism.
7. Bhookan Saran Gupta:
   A Study of Rainfall at Five Places in India.
8. Nardeo Varma:
   The "Drain" Problem.
9. Radha Krishna Mathur:
   A Short Enquiry into the Family Budgets of Primary School Teachers in (*a*) the Rural Area and (*b*) the Urban Area of Allahabad district.
10. K. C. Mittal:
    Present Taxation Policy of the Indian Government.
11. Hamidullah:
    Islam's Solution of the Basic Economic Problems.
12. Mahesh Prasad:
    Incidence of Import Duties with Special Reference to India.
13. Brij Nandan Tandon:
    The Compulsory Primary Education in British India.
14. G. W. Sealey:
    The Case for Planning and Reconstruction with Special Reference to India.

15. Har Narayan Pali:
    Commercial Possibilities of the District of Etah.
16. H. S. Mukerjee:
    Unemployment Among the Middle-Class Educated Indians (A Survey).
17. Rajesh Datt Pandey:
    Economics of Fascism.
18. Virendra Kumar Govil:
    Poverty and India.
19. Shyam Sundar Lal:
    How a Socialist Looks Upon the Indian Society.
20. Balgovind Prasad Srivastava:
    Development of India's Foreign Trade during the War.
21. Himangshu Bala Sanyal (Miss):
    The Problem of Unemployment of the Educated Middle Classes in India.
22. Kestin James:
    Road Transportation in India and Its Future.
23. Mukut Vehari Mathur:
    The Calcutta Stock Exchange.
24. Shri Krishna Das Shah:
    Indian Public Debt.
25. Rama Singh Srivastava:
    On Reconstructing the Economy of the U.P.
26. K. C. Mathews (Research Scholar):
    Economic Migration in India.
27. V. K. Natoo (Research Scholar):
    The Pressure of Population in the U.P. and the Punjab.
28. Ratish Mohan Agarwal (D.Litt. Scholar):
    The Theory of Normative Economics.
29. Shri Ram Gupta (Research Scholar):
    The National Income of India.
30. Murli Dhar Joshi (Research Scholar):
    A Study of Birth-Rates and Death-Rates in the U.P.
31. Jayanti Swarup Mehrotra (Research Scholar):
    Economic Conditions in the Epic Age in India.
32. Mukut Vehari Mathur (Research Scholar):
    Indian Stock Exchanges.
33. Ras Behari Lal Shah (Research Student):
    Family Budgets of A Few Weavers of Allahabad.
34. Roberts, (Research Scholar):
    A Bibliography of Books on Indian Economics.

STATEMENT OF RESEARCH WORK IN ECONOMICS ALREADY COMPLETED OR IN PROGRESS IN THE VARIOUS UNIVERSITIES OF INDIA.

Compiled by

DR. B. V. NARAYANASWAMY,
Hon. Secretary,
Indian Economic Association.

UNIVERSITY SCHOOL OF ECONOMICS AND SOCIOLOGY—BOMBAY

(a) *Theses prepared in the School and approved for the M.A. Degree.*

Name of Student.		Subject of Thesis.
		1922
1 Deshpande,	Mr. R. G.	... Income-Tax in India.
		1924
2 Pandit.	Miss S. V.	... The Position of Women Workers in Bombay Cotton Mills.
3 Balsara,	Mr. J. F.	... Religion and Society.
4 Khambata,	Mr. K. J.	... Measurement of the Wealth of India.
5 Ranade,	Mr. V. G.	... Economic and Social Survey of a Konkan Village.
		1925
6 Muranjan,	Mr. S. K.	... Prices in India.
		1926
7 Gokhale.	Mr. B. N.	... State and Municipal Enterprise in India.
8 Venkateshwaran,	Mr. K. G.	... Infant Mortality in British India.
		1927
9 Deolalkar,	Mr. P. V.	... Textile Industries in India.
10 D'Souza,	Mr. M. N.	... Indian Christian Community in Bombay: A Social Study.
11 Joglekar,	Mr. S. A.	... Rural Reconstruction in the Deccan.
12 Joshi,	Mr. P.	... Railways and Industrial Development of India.
13 Karandikar,	Mr. S. V.	... Hindu Exogamy.
14 Randive,	Mr. B. T.	... The Population Problem in India, with special reference to Food Supply.

			1928
15 Bose,	Mr. S. C.	...	The Foreign Trade of India.
16 Dhumatkar,	Miss M. G.	...	Position of Hindu Woman, with special reference to Maharashtra.
17 Furtado,	Mr. P.	...	The Place of the Entrepreneur in Modern Economic Society, with special reference to Indian Conditions.
18 Joglekar,	Mr. J. G.	...	The Evolution of Social Ideals in Maharashtra during XIX Century.
19 Kale,	Mr. D. V.	...	Life and Manners of XVIII Century Maharashtra.
20 Karve,	Mrs. I.	...	Chitpavan Brahmins: A Social and Ethnic Study.
21 Mehta,	Mr. G. L.	...	Social Thought of Bertrand Russell.
22 Menon.	Mr. K. K.	...	Crime in British India.
23 Mukhtyar,	Mr. G. C.	...	Life and Labour in a South Gujarat Village.
			1929
24 Joshi,	Mr. C. B.	...	Economic Condition of India during Mussalman Rule.
25 Joshi,	Mr. P. M.	...	Some Non-Textile Industries in India.
26 Majumdar,	Mr M. R.	...	Social History of Gujarat during XIX Century.
27 Rao,	Mr. V. K. R. V.	...	Taxation of Income in India.
28 Shah,	Mr. H. V.	...	Federal Finance in India.
			1930
29 Desai,	Miss S. K.	...	Socio-Economic Position of Women in India from 1858 to 1929.
30 Dixit,	Mr. S. C.	...	The Vadnagara Nagars of Gujarat.
31 Engineer,	Mr. N. A.	...	The Population Problem of the Parsis.
32 Hate,	Mrs. C. A.	...	The Economic Conditions of Educated Women in Bombay City.

No.	Name of Student.		Subject of Thesis.
33	Kharas, Mr. J. D.	...	Indian Customs Tariff, with special reference to Trade and Industry, 1913—29.
34	Kowta, Mr. S.	...	The Problem of Social Justice.
35	Marshall, Mr. D. N.	...	The Indian Transport System: Its Economic Sufficiency and Geographical Distribution.
36	Mehta, Mr. C. A.	...	A Historical and Analytical Study of the British Land Revenue Policy in the Deccan and Gujarat.
37	Mehta, Mrs. Sarojini	...	Marriage and Family Life in Gujarat.
38	Vakil, Mr. K. M.	...	Labour Conditions in India, with particular reference to and as illustrated by Legislation.
39	Weling, Mr. N. A.	...	The Katkaris: A Study in Primitive Social Life.
			1931
40	Deokule, Mr. T. G.	...	Regional and Social Characteristics of British Philosophy.
41	Munshi, Mr. M. C.	...	Indian Customs Tariff: An Analytical and Comparative Study.
42	Pratapgiri, Mr. R.	...	The Problem of the Indian Polity.
43	Syed, Mr. Aziz-ul-Haque.	...	Methods and Machinery of Investments in India.
44	Mohile, Mr. V. G.	...	Sub-Division & Fragmentation of Agricultural Holdings in India.
45	Trivedi, Mr. P. O.	...	Drink Problem in Bombay Presidency.
			1932
46	Anjaria, Mr. J. J.	...	Grounds of Political Obligation in Hindu State.
47	Badheka, Mr. K. O.	...	Transport Facilities in Kathiawar.
48	Desai, Mr. M. M.	...	Instinct and Habit in Society.

49 Mankad,	Mr. B. L.	...	Genealogical Study of Some Vital Problems of Population.
50 Merchant,	Mr. K. T.	...	Changing Ideas on Marriage and Family.
51 Narsian,	Miss S. J.	...	The Amil Community of Sind Hyderabad.
52 Samant,	Mr. D. R.	...	Organisation and Finance of Joint Stock Companies in India.
53 Dantwala,	Mr. M. L.	...	Marketing and Trade of Raw Cotton in Bombay.
54 Doshi,	Miss C. M.	...	Dashashrimali Jains of Kathiawar.
55 Dubash,	Miss P. M.	...	Hindu Art in Its Social Setting.
			1933
56 Gheewala,	Mr. C. L.	...	The Problem of Sovereignty in Hindu State.
57 Karbhari,	Mr. G. S.	...	Public Debt in India.
58 Mehta,	Mr. B. H.	...	Life and Labour of Village Communities in India.
59 Mulky,	Mr. M. A.	...	Financing of Industries in India.
60 Pandit,	Mr. Y. S.	...	India's Balance of Indebtedness, 1898—1913.
61 Shukla,	Mr. J. B.	...	Economic Survey of Olpad Taluka (Surat District).
62 Rege,	Mr. Y. M.	...	In the Wake of Emancipation—Being a criticism of Social Life and Thought of Western Woman.
63 Tiwari,	Mr. R. D.	...	Railway Rates in relation to Trade and Industry in India.
			1934
64 Limaye,	Mr. D. H.	...	Indian Military Finance.
65 Maluste,	Mr. D. N.	...	Commercial Relations between India and Japan in Modern Times.
66 Masani,	Mr. S. M.	...	Possibilities of the Development of Banking in India.
			1935
67 Bhagat,	Mr. M. G.	...	Untouchability in Maharashtra.

Name of Student.			Subject of Thesis.
68 Chawla,	Mr. S.	...	Fallacy of the Gold Standard.
69 Joshi,	Mr. D. J.	...	Finances of the Bombay Municipality.
70 Kale,	Mr. B. M.	...	Economics of Primary Education in Bombay.
71 Save,	Mr. K. J.	...	The Warlis: A Study of an Aboriginal Tribe of the Bombay Presidency.
72 Vakil,	Miss K. B.	...	The Nature of Poverty among the Parsis.
			1936
73 Bhaiji,	Mr. M. M. M. A.	...	The Mussalmans of Bombay: An Economic Survey with Special Reference to Working Classes.
74 Desai,	Mr. R. M.	...	Economic Conditions of the Baroda State.
75 Patel,	Mr. A. D.	...	Agricultural Economics of Borsad Taluka (Kaira District).

(b) *Theses Published.*

1. Mr. Khambata's thesis on "The Wealth of India" is embodied in "Wealth and Taxable Capacity of India" by Professor K. T. Shah and Mr. K. J. Khambata. (D. B. Taraporevala Sons & Co., 1924.)

2. Mr. Muranjan's thesis on "Prices in India" is embodied in "Currency and Prices in India" by Prof. C. N. Vakil and Prof. S. K. Muranjan. (Longmans, Green & Co., 1927.)

3. Mr. Ranade's thesis has been published by the Bombay Provincial Co-operative Institute in their series under the title of "A Social and Economic Survey of a Konkan Village" (1926).

4. Mr. Karandiker's thesis on "Hindu Exogamy" is published under the same title as a University Publication. (D. B. Taraporevala Sons & Co., 1929.)

5. Mr. Mukhtyar's thesis on "Life and Labour in a South Gujarat Village" was published in 1930. (Longmans, Green & Co.)

6. Mr. Ranadive's thesis on "The Population of Problem in India with special reference to Food Supply" was published in 1930. (Longmans, Green & Co.)

7. Mr. Rao's thesis on "Taxation of Income in India" was published in September 1931. (Longmans, Green & Co.)

8. The theses of Messrs Bose and Deolalkar have been embodied in an abridged form in "Growth of Trade and Industry in Modern India" by Prof. Vakil, Prof. Bose and Mr. Deolalkar. This volume was published in November 1931. (Longmans. Green & Co.)

9. The thesis of Mr. M. C. Munshi has been embodied in a revised form in "Industrial Policy of India with special reference to Customs Tariff" by Vakil and Munshi. This was published in February 1934. (Longmans, Green & Co.)

10. Mr. Weling's thesis on the Katkaris was published in March 1934. (Bombay Book Depot.)

(c) *Papers published in the University Journal.*

Articles based on theses done in the School, or abstracts of theses are published in the Journal of the University of Bombay from time to time. The following is a list of such articles:

Name of the Student.	Subject.
1. Anjaria, J. J.	"The Problem of Political Obligation in Hindu State." (January, 1933)
2. Badheka, K. O.	"Problems of Transport in Kathiawar." (January, 1933)
3. Bhagat, M. G.	The Untouchable Classes of Maharashtra. (July, 1935)
4. Bose, S. C.	"A Study of Indo-American Trade since 1875." (July, 1932)
5. Desai, M. M.	"The Origin of the Horror of incest Oedipus Complex." (July, 1932)

Name of the Student.	Subject.
6. Hate, Mrs. C. A.	"The Economic Conditions of Educated Women in Bombay City." (Jan., 1935)
7. Kale, D. V.	"Development of the Constitutional Ideas in the History of the Marathas." (January, 1934)
8. Karve, Mrs. Irawati.	(i) "The Parasuram Myth." (January. 1933)
	(ii) "Ethnic Affinities of the Chitpavans." (July, 1933)
9. Malkani. H. C.	"Some Aspects of Economic Life in Sind." (January, 1935)
10. Maluste, D. N.	"Poverty of China: Some Causes." (July, 1934)
11. Mankad, B. L.	(i) "Genealogical Study of Some Vital Problems of Population." Part I. (January, 1934)
	(ii) Genealogical Study of Some Vital Problems of Population. Part II. (July. 1935)
12. Masani, S. M.	"A Central Reserve Bank for India." (January, 1935)
13. Mehta, B. H.	"A Summary Survey of the Economic Life of an Aboriginal Tribe of Gujarat." (January, 1934)
14. Mohile. V. G.	"Agricultural Holdings in India." (July, 1932)
15. Mulky. M. A.	"Industrial Finance in India." (July. 1935)
16. Munshi. M. C.	"The Place of India in International Commerce." (July. 1932)
17. Pandit. Y. S.	(i) "Foreign Exchanges. Barter Terms and Price Level in India 1898-1913." (July. 1932)
	(ii) "International Economics." (January, 1935)
18. Pratapgiri. R.	(i) "Nature and Sphere of the Ancient Indian State." (July, 1932)
	(ii) "The History and Historigraphy of India." (July, 1932)
	(iii) "The State and the Individual." (January, 1934)
19. Rao, V. K. R. V.	"Finance at the Indian Round Table." (July, 1934)
20. Tiwari, R. D.	Limitations of Cane Sugar Manufacture (July, 1935)

(d) *Theses under preparation*

(i) For Ph.D. Degree.

Name of the Student.	Subject.
Bhagwat, Miss D. N.	Hindu Customs.
Bhatt, Mr. V. M.	Theory of International Trade.
Chaudhuri, Mr. S. N.	Indian Monetary Problems in Recent Years.
Dantwala, Mr. M. L.	Organised Markets in India.
Jeejeebhoy, Mr. N. B.	Growth of Bombay.
Mehta, Mr. B. H.	The Social and Economic Conditions of the Meghwal Untouchables of Bombay.
Shah, Mr. N. A.	Structure and Problems of Indian Industry.
Somayajulu, Mr. J. V.	The Problem of the Investor.
Thakore, Mr. U. T.	Sindh Culture.
Tiwari, Mr. R. D.	Commercial Treaties.

(ii) For M.A. Degree.

Bunyan, Mr. G. D. E.	The Protestant Indian Christian Community of Bombay.
Bhatt, Mr. I. C.	Social Problems of Hindu India As Found in the Upanishads.
	Hindu Marriage.
Cholia, Mr. R. P.	Dock Labourers in Bombay.
Gadkari, Mr. B. L.	Some Aspects of Middle Class Life in Bombay City.
Gandhi, Mr. M. M.	Trade Unions.
Hate, Mr. J. M.	Insurance in India.
Joshi, Miss P. J.	The Pushkarnas.
Joshi, Mr. T. M.	Hindu Epics and Morals.
Kamte, Mr. G. A.	The Nature and Organisation of the Jain Polity.
Kania, Mrs. B. H.	The Castes of Gujarat.
Kapadia, Mr. K. M.	Hindu Kinship.
Mazumdar, Mr. S. M.	India in the Trade Depression.
Mistry, Miss S. D.	Evolution of Indian Dresses.
Nadkarni, Mr. M. S.	Banking in India.
Narayaniah, Mr. S.	The Place of Custom in the Development of Hindu Law.
Patel, Mr. I. B.	The Film Industry in India.
Pradhan, Mr. G. R.	Untouchable Workers in Bombay City.
Raghavrao, Mr. G.	Population Problem of the Bombay Presidency.
Raje, Mr. V. D.	Some Aspects of Indian Banking.
Roy, Mr. P. M.	Social Life and Labour in Buddhist India.
Sabnis, Mr. G. K.	Study of Some Sentiments.
Suntook, Mr. N. K.	The Regional Characteristics of Man's Arts and Crafts on Earth.
Valavalkar, Mr. P. H.	The Social Psychology of the Hindus.
Varma, Mr. Rama.	Population Problem in South India.

N.B.—This list is not exhaustive. There are several students doing introductory work with a view to select their subjects for research. There are others who have suspended their work this year for one reason or another, and propose to continue the same in future.

ELPHINSTON COLLEGE, BOMBAY

Title of Work	Name of Author	Degree for which approved.	Name of Publisher & year of Publication
Economic Consequences of the War for India.	Mr. S. G. Panandikar	Ph.D. (Econ. London)	Taraporewalla and Sons, Bombay, 1921.
Wealth and welfare of the Bengal Delta.	Mr. S. G. Panandikar	D. Sc. (Econ. London)	Calcutta University Press, 1926.
Industrial Labour in India.	Mr. S. G. Panandikar	...	Longmans, Green and Co., 1933.
Banking in India	Mr. S. G. Panandikar	...	Longmans, Green and Co. 1934.

COLLEGE OF AGRICULTURE, POONA

Research Work Completed

Title of Work.	Name of Authors.	Degree for which approved.	Name of Publisher and year of Publication.	Remarks.
1. **Preliminary Studies of Important Crops in the Bombay Deccan in the Post-War Period, Bulletin No. 168.**	Rao Bahadur P. C. Patil, L.Ag., M.Sc. (Wis.), T.G. Shirname, B.Ag., Ph.D., T. B. Pawar, B.Ag. and K. M. Shah, B. Ag.	Nil	Department of Agriculture, Bombay in 1932.	
2. **Principles and Practice of Farm Costing with Farm Studies, special publication.**	Rao Bahadur P. C. Patil, L.Ag., M.Sc. (Wis.), T. B. Pawar, B.Ag., and others.	D.Sc to Rao Bahadur P.C. Patil.	Department of Agriculture, Bombay in 1933.	
3. **Marketing of Some Agricultural Products exported from Bombay to the United Kingdom, Bulletin No. 173.**	T. G. Shirname, B.Ag., Ph. D.	Nil	Department of Agriculture, Bombay in 1933.	

Research Work in Progress

Title of Work.	Name of Authors.	Degree for which approved.	Name of Publisher and year of Publication.	Remarks.
1. Financial Results of 25 Farms at and near Malsiras in Sholapur District.	Dr. M. B. Ghatge,* Ph. D. and others.	Nil	Department of Agriculture, Bombay in 1937-38.*	*Indicates probability.
2. Financial Results for Two Years of Mixed Farming in Charotar Tract of Gujarat, Bombay Presidency.	Dr. T. G. Shirname, B.Ag., Ph. D., and K. M. Shah, B. Ag.	M. Ag. or Ph. D. to Mr. K. M. Shah.*	...	
3. Financial Results for Five Years of Mixed Farming in Charotar Tract of Gujarat, Bombay Presidency.	Dr. T. G. Shirname, Ph.D., Dr. M. B. Ghatge, Ph.D., and K. M. Shah, B. Ag.	Nil	Department of Agriculture, Bombay in 1938-39.*	

THE SCHOOL OF ECONOMICS AND SOCIOLOGY, UNIVERSITY OF BOMBAY

THESES UNDER PREPARATION

For Ph.D. Degree

Name of the Student.			Subject.
(1) Chandy,	Mr. K. T.	...	Indian Railway Finance.
(2) Pandit,	Mr. Y. S.	...	India's Balance of International Indebtedness, 1913 to 1935.
(3) Patel,	Mr. M. H.	...	Provincial Finance.
(4) Parmar,	Mr. R. U.	...	Indian Customs.
(5) Vaswani,	Mr. T. A.	...	The Co-operative Movement in Sind.
(6) Vazir,	Mr. H. G.	...	Labour Conditions in India.

For M.A. Degree

(7) Mahadeshwar,	Mr. D. R.	...	Income-Tax.
(8) Mapara,	Mr. N. H.	...	India's Trade Relations with America.
(9) Pardiwala,	Mr. J. J.	...	Some Aspects of Indian Banking.
(10) Roy,	Mr. R. M.	...	Development of Insurance in India.

GUJARAT COLLEGE, AHMEDABAD

RESEARCH WORK COMPLETED

1. *Public Finance.*—An investigation in regard to modern financial problems connected with Public Expenditure, Public Income, Public Debt and Public Administration. This has been going on for the last ten years and was published recently in two volumes as the third edition of the "Science of Public Finance," Macmillan & Co., London, 1936.

2. *Population Problems.*—An investigation into the population problem in India completed. See International Migration, Volume 2, Part III, Studies of National Emigration Currents, Publications of the National Bureau of Economic Research, New York, 1931: The Population Problem in India, Economic Journal, March 1933, and Precensal Estimates of India's Population, a note shortly to be published by the International Institute of Statistics at the request of Professor Willcox, Cornell University, giving estimates of India's population in 1650, 1750, and 1850.

3. *The Problem of Poverty.*—'Poverty and Kindred Economic Problems in India,' third edition, 1935. (Manager of Publications, Government of India, Delhi.)

4. *Studies on the Pareto Law and the Distribution of Income* in conjunction with the Department of Mathematics, Gujarat College, (University of Bombay), Ahmedabad. The results extending over some years have been published in the Economic Journal, December 1935.

5. *Studies in Banking.*—The Reserve Bank of India, Economic Journal, December 1928 and June 1934. Cf. Chapter XLI, 'The Central Bank,' "Science of Public Finance" Macmillan & Co., London, 1936.
   Indian Finance and Banking, Macmillan & Co., 1919.

6. *Financial Relations.*—The Readjustment of Central and Provincial Finance in Federal Constitutions, see paper in Economia Politica Contemporanea, Padua 1930: Indian Finance and the Financial Relations of Provinces in the Dominion of South Africa. See paper in Handbuch der Finanzwissenshaft.

Work in Progress

1. *The National Income of India* (still in progress)—See paper on 'Our National Income' in the Journal of Indian Institute of Bankers 1936 and a paper will be shortly published in the International Institute of Statistics edited by Verrijn Stuart, Holland.

2. *Problem connected with Rupee Circulation* just under investigation. Paper for the Seventieth Anniversary of Professor Irving Fisher. This volume is to contain papers of twenty world economists of various countries. The Editors are: (1) Professor Willford I. King of New York University, (2) Professor Arthur D. Gayer of Columbia University, and (3) Professor James Harvey Rogers of Yale University.

3. *Pareto Law and the Distribution of Income*, See 4 above.

WILLINGDON COLLEGE, SATARA

Title of Work.	Name of Author.	Name of Publisher.
Poverty and Population in India.	Prof. D. G. Karve, M.A.	Oxford University Press, 1936.

SIR PARASHURAMBHAU COLLEGE, POONA

(a) *Research work completed and published*:—

1. Title—"Handloom Industry in Madras Presidency." It has just been published in part in the University Journal, Madras.
2. Author—Prof. K. S. Venkatraman, M.A., B.L.
3. None.

(b) *Research work in progress*:—

1. Title of work—Coir Industry.
2. Name of Author—Prof. K. S. Venkatraman, M.A., B.L.
3. Degree for which approved—none.
4. Intended for publication in the University Journal of Bombay.

BARODA COLLEGE, BARODA

(a) *Research work completed.*

1. Title of work ... Indigenous Banking in Gujarat.
2. Name of the author ... Mr. N. C. Desai.
3. Degree for which approved M.A.
4. Name of publisher and year of publication ... Nil.

1. Title of work ... Social and Economic Structure of Bombay Presidency.
2. Name of the author ... Mr. N. R. Anchor.
3. Degree for which approved M.A.
4. Name of publisher and year of publication ... Nil.

(b) *Research work in progress in Economics.*

1. Title of work ... Research work on the Economic condition of Ataladra village.
2. Name of the author ... Mr. N. S. Desai.
3. Degree for which approved Nil.
4. Name of publisher and year of publication ... Nil.

PATNA COLLEGE

Dr. Gyanchand.

Published works.	Publishers.
(1) The Financial System of India	Kegan Paul.
(2) The Essentials of Federal Finance ...	Oxford University Press.
(3) Some Aspects of Fiscal Reconstruction ...	Do.

Completed but not published.

(1) Local Finance in India ...	To be published after the introduction of the New Constitution.

In progress.

"Population problem in India"

Mr. B. B. Mukherjee.

Published works.	Publishers.
(1) Co-operation of Rural Welfare in India ...	Thacker Spink & Co.
(2) Economic and Commercial Geography ...	Kamala Book Depot.

Completed but not published.

Agricultural Marketing in India.

Mr. R. K. Sharan.

In preparation :—

The Economic Effects of the Depression in India.

Mr. S. R. Bose.

"A Statistical Survey of Food Grain Prices in Bihar and Orissa" has been completed and is being published by Piyari Press, Calcutta.

Mr. B. N. Mukherjee.

In Preparation :—

"Working of Local Government in India with special reference to Bihar."

UNIVERSITY OF MADRAS

1. "Handloom Weaving in Madras Presidency"—K. S. Venkatraman—Madras University—Completed.
2. "Indigenous Banking in South India"—V. Krishnan—Madras University—Approved for the Ph.D. Degree.
3. "Capital Market of Madras Presidency"—M. S. Natarajan—Madras University—Approved for the Ph.D. Degree.
4. "Rural Credits in Chingleput"—G. Gopala Rao—Completed.
5. "Survey of Tiruvallur Taluk"—G. Gopala Rao—In progress.
6. "Marketing of Malabar Produce"—Y. Sankarasubrahmanyan—Completed.
7. "The Madras Land Revenue System"—B. Nataraja Pillai—In progress.
8. "Indian Budgets from 1860—75"—T. Satyanarayana—Completed.
9. "Economic History of South India, 1800—1850"—Miss A. Sarada—In progress.
10. "History of Madras Provincial Finances up to 1919"—V. Vasudeva Rao—Completed.
11. "Foreign Investments in India"—L. Perreira—In progress.
12. "Economic Condition of the Madras Presidency—from 1880 to the present day."—A. K. Veeraraghavan—In progress.
13. "Economic Resurvey of Villages in Ramnad and Tinnevelly"—S. Tirumalai—In progress.
14. "Economic Resurvey of Villages in Malabar"—P. C. Thomas—In progress.
15. "Indo-Japanese Trade"—T. K. Narayanan—In progress.
16. "Marketing of Cotton in South India"—J. S. Ponniah, Lecturer, American College, Madura—Completed.

UNIVERSITY OF DELHI

Title of Work.	Name of author.	Degree for which approved	Name of Publisher and year of publication
"Indebtedness and other Economic problems of the Christian shoemakers in the city of Delhi."	Mr. K. C. Nag, M.A., St. Stephen's College, Delhi.	...	Not yet published.
"Some Aspects of Rural Economic Conditions in Delhi Province"	Mr. Radhika Narain, M A., Commercial College, Delhi.	...	Messrs S. Chand and Co., Delhi. Janauary, 1935.

ANNAMALAI UNIVERSITY

	Name.	Subject.	Thesis completed or not.
(1)	Mr. A. R. Kuppusami, B.A. (Hons.)	"Cooperative Movement in South Arcot and Salem."	Completed.
(2)	Mr. C. V. Sundararaman, B.A. (Hons.)	"Land Revenue System in South Arcot."	Completed.
(3)	Mr. V. Venkataraman, B.A. (Hons.)	"Problem of Rural Indebtedness."	Completed.
(4)	Mr. V. Sivaraman, M.A.	"Industrial Labour in South India."	Completed. (Awarded M.Litt. Degree.)
(5)	Mr. C. Jagannathachari, M.A.	"Foreign Trade of India from 1912 to 1935."	In progress.
(6)	Mr. K. Venkata Rao, B.A. (Hons.)	"Economic Conditions in India from 1700."	In progress.
(7)	Mr. V. Sivaraman, M.A., M.Litt.	"Municipal Finance."	In progress.

UNIVERSITY OF RANGOON

Title.	Author.	Degree for which submitted.	Publisher.
What has Philosophy to contribute to the Social Sciences, and to Economics in particular ?	H. Bernardelli, D. Phil.	...	Economica, November 1936.
Three Economic Systems Clash in Burma.	J. R. Andrus, M.A., Ph.D.	...	Review of Economic Studies, Feb. 1936.
Pricing in a Planned Socialist Economy.	M. A. Hamid, B. A. (Hons.)	M. A.	...
Muslim Theories of Finance	do.	M. A. Degree (1937)	...
Season Variations of Paddy Market in Burma.	do.	do.	...
Post-War Changes in the Foreign Trade of India	do.	do.	...
Co-Operation in Burma	U Tin Ohn, B.Sc., (Econ.)	...	Author, 1936.

OSMANIA UNIVERSITY

1. Mr. Mohd. Abdul Qadir on "Financial Problems of Indian local bodies from the historical and analytical point of view."
2. Mr. Syed Akhtar Husain on "Land Tenures in Hyderabad."
3. Dr. Jafar Hasan on (*a*) "The Social Causes of Indian Poverty" and (*b*) "Population Problems."

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ADAM SMITH AS STUDENT AND PROFESSOR*

BY

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India has in recent years taken a great interest in the study of Economics which is usually defined as a study of mankind in the ordinary business of life or the social science of business. It is usual to regard Adam Smith, the author of the *Enquiry into the Nature and Causes of the Wealth of Nations* published on the 9th of March, 1776, as the Founder of the study. The object of this paper is to show how interested Adam Smith was in India and what recent discoveries have been made in regard to him.

It is a fact that Adam Smith very nearly came to India and, had he come, we might never have had the *Wealth of Nations* or, at any rate, it might have been long delayed. In 1772 the East India Company proposed to send out to India a Special Commission of Supervision to examine in every detail the administration, as things were, from a financial point of view, in an unsatisfactory way. Burke had been offered one of the seats

* Adam Smith as Student and Professor, with Unpublished Documents, including parts of the "Edinburgh Lectures," a Draft of "The Wealth of Nations," Extracts from the Muniments of the University of Glasgow and Correspondence. By W. R. Scott. Glasgow, 1937. Pp. xxv+445. 30s. Obtainable by Members of the Royal Economic Society at 20s. post free on application to the Assistant Secretary, 6 Humberstone Road, Cambridge.

but had refused. Sir William Pulteney M.P. who had considerable influence with the Court of Directors was anxious that Adam Smith should be one of the three. Two friends of Adam Smith were candidates, Professor Adam Ferguson of Edinburgh University and Mr. Andrew Stuart M.P. We find, in a letter of Adam Smith to Sir Pulteney dated Kirkcaldy 5th September, 1772, the following, which is of considerable interest:

> " I think myself very much honoured and obliged to you for having mentioned me to the E. India Directors as a person who would be of use to them. You have acted in your old way of doing your friends a good office behind their backs pretty much as other people do them a bad one. There is no labour of any kind which you can impose upon me which I will not readily undertake. By what Mr. Stewart and Mr. Ferguson hinted to me concerning your notice of the proper remedy for the disorders of the coin in Bengal, I believe our opinions upon that subject are perfectly the same."

The upshot of this was that Parliament intervened and forbade any such Commission being sent out to India at all. It is a matter of speculation as to what would have been the result, but, so far as the *Wealth of Nations* is concerned, I have no doubt that it might, as already indicated, have affected its publication. Thorold Rogers indeed believes that the delay in the publication of the *Wealth of Nations* was probably due to the negotiations which Sir William Pulteney was conducting on Smith's behalf. " Had he succeeded," says Rogers, " it is probable that the *Wealth of Nations* would never have seen the light; for everyone knows that in the first and second books of that work the East India Company is criticised with the greatest severity . . . I have no doubt that owing to Pulteney's negotiations it lay unrevised and unaltered during four years in the author's desk." It is quite true that Adam Smith criticises the East India Company of trying to combine Government with Trading.

> " It is a very singular Government in which every member of the administration wishes to get out of the country and, consequently, to have done with the Government as soon as he can and to whose interest, the day after he has left it and carried his fortune with him, it is perfectly indifferent though the whole country was swallowed up by an earthquake."

It is not so much the fault of the men as of their situation. The plain fact is that "Such exclusive companies are nuisances in every respect."

There has recently been published to commemorate the two hundredth anniversary of Adam Smith's matriculation at Glasgow University a remarkable book by Professor W. R. Scott entitled *Adam Smith as Student and Professor* during the twenty-seven years when he was engaged in academic work and before he was appointed tutor to the Duke of Buccleuch and therefore before his appointment as Commissioner of Customs in Edinburgh. The period covered includes the three years he was at Glasgow University, the six years at Balliol College, Oxford, the five years at Edinburgh including the two years when he was unemployed after leaving Oxford in the autumn of 1746 to the autumn of 1748 when he stayed with his mother at Kirkcaldy as it was only during the last three of these years that he gave his public lectures in Edinburgh. In a course of lectures written in 1749 and delivered in 1750-51 he spoke on Economics and advocated commercial liberty. It also includes the thirteen years at Glasgow University, in regard to which he said that it was by far the most useful and therefore the happiest and most honourable period of his life.

Adam Smith's ancestors.

At long last, we now know Adam Smith's ancestry. Professor Scott has succeeded in obtaining from Wills and similar sources very authentic information regarding Adam Smith's father and mother. It was known that the father of Adam Smith came from Aberdeen, but beyond this fact of Dugald Stewart we had no details until recently. His father belonged to an Aberdeenshire family, the Smiths of Rothiebrisbane and Inveramsay. His father belonged to the junior branch which was distinguished in the Civil Service in the first half of the 18th Century which includes the Act of Union in 1707. The junior branch of the family was as devoted to the Crown as was the senior branch to the Jacobites. Adam Smith's father a Writer to the Signet (a branch of the legal profession peculiar to Edinburgh) was Private Secretary to the Earl of Loudoun, Secretary of State for Scotland during the negotiations connected with the Act of Union and held Civil Service posts such as the Controller of Customs at Kirkcaldy. He studied at King's College, Aberdeen University. Adam Smith's uncle was General Collector of Taxation in Scotland and Postmaster-General of

Scotland. One cousin was Secretary to the Duke of Argyle and another cousin became Inspector of Customs, while two more cousins were Collectors of Customs at Alloa and Kirkcaldy. We now see that Adam Smith was connected with the landed administrative class and that in the second half of his life when he was Commissioner of Customs in Scotland, he was merely following the traditions of his family. There are many passages in the *Wealth of Nations* showing how objective its author was and with these details now available they are not difficult to understand. In addition to these, Professor Scott has given us many interesting facts from the documents available in the University to show as clear as the noonday that Adam Smith was not, as Bagehot and others say, lacking in business acumen and very absent-minded. Indeed, his work, as a professor in Glasgow shows that his colleagues on the Senatus valued his advice and as a professor he was both popular with his students and a good lecturer. He lectured for eight periods a week excluding tutorial classes. His public class was from 7-30 to 8-30 a.m. from Monday to Friday and the private class met on three days a week from 11 a.m. to noon. We have it from his biographer Rae that Smith was extremely accessible to his students and was even in the habit of inviting the abler men among them to his house to discuss with them the subject of his lectures or any other subject.

We are now able definitely to discard such statements as those of Bagehot who wrote in 1876 as follows:

> "The founder of the science of business was one of the most unbusinesslike of mankind. He was an awkward Scotch professor, apparently choked with books and absorbed in abstractions. He was never engaged in any sort of trade, and would probably never have made sixpence by any if he had been. His absence of mind was amazing. On one occasion having to sign his name to an official document he produced not his own signature, but an elaborate imitation of the signature of the person who signed before him; on another, a sentinel on duty having saluted him in military fashion, he astounded and offended the man by acknowledging it with a copy—a very clumsy copy, no doubt—of the same gestures. And Lord Brougham preserves other similar traditions. 'It is related' he says 'by old people in Edinburgh that while he moved through the Fish-market in his accustomed attitude—that is with his

hands behind his back, and his head in the air—a female of the trade exclaimed taking him for an idiot broken loose, 'Hech, sirs, to see the like o' him to be aboot. And yet he is weel enough put on' (dressed). It was so, too, in society. Once, during a dinner at Dalkeith, he broke out into a lecture on some politics of the day, and was bestowing a variety of severe epithets on a statesman when he suddenly perceived the nearest relative of the politician he was criticising, sitting opposite and stopped; but he was heard to go on muttering. 'Deil care, Deil care, it is all true.' And these are only specimens of a crowd of anecdotes."

We have also from recent researches additional information regarding Smith's life. Professor Scott has been able to confirm the kidnapping by gypsies of Adam Smith, then three years old, from Strathenry Castle in 1726. He has given us a new tale of how Adam Smith was robbed by a highwayman in 1777, when he gave up his valuables and would not allow his servant to fire a pistol. We have a reference to this in a letter from Alexander Wedderburn, Lord Chancellor of England, who points out that there was a little mixture of prudence in Adam Smith's handing over his valuables, as Adam Smith's life would have probably been more in danger than the highwayman's by the firing of the pistol by his servant. Another passage which is new is about Adam Smith's falling into a tan-pit in a tanning factory in Glasgow. This was about 1760 when he was demonstrating to Charles Townshend the Division of Labour. He overbalanced on the plank which was used for crossing the tan-pit and fell into the pool below. Apart from the indignity of the accident there was the risk of asphyxiation from the fumes.

We have also additional information regarding the private affairs of Smith. He had the gift of inspiring friendship but curiously enough in one direction he failed altogether. He was unsuccessful in his love affairs and died a bachelor. Dugald Stewart mentions an attachment early in his life. There was another the "Maid of Fife." Adam Smith meeting in Edinburgh the lady to whom he had once paid his addresses did not recognize her until his cousin, Miss Douglas exclaimed "Adam, don't you know it's your ain Jeannie?" The close and the tender tie between him and his mother who died in her 90th year is seen in a letter, which is published for the first time, addressed to his publisher William Strahan dated Custom House, Edinburgh, 10th June, 1784:

"The final separation from a person who certainly loved me more than any other person ever did or ever will love me; and whom I certainly loved and respected more than I shall either love or respect any other person, I cannot help feeling, even at this hour, as a very heavy stroke upon me."

From a manuscript in Edinburgh University by John Callander, we find a reference to Adam Smith's Edinburgh lectures of 1748—51. Callander states that the lectures were on Civil Law as well as on English Literature. Professor Scott concludes that the "Progress of Opulence" which foreshadows Book III of the "*Wealth of Nations*"—"The different progress of opulence in different nations"—were delivered by Smith in his final course of lectures in Edinburgh in the year 1750-51. Callander was an annotator of Milton's *Paradise Lost* and a Scottish antiquary of some note who died in 1789. Another new source of information, which was discovered in a secret receptacle of Adam Smith's bureau is a manuscript consisting of four documents amounting to fifteen folio pages. This manuscript is in part given in facsimile and it is unfortunate that these documents have not been transcribed. Two of the four papers—one on the Division of Labour and the Extent of the Market and the other on Transport—relate, from internal evidence, to the Edinburgh period. This escaped destruction in 1790 when a week before Adam Smith's death sixteen volumes of manuscript were destroyed on Smith's entreaties by his friends, Black and Hutton. These documents that have now come to light escaped destruction as they were among certain letters which Adam Smith had not destroyed.

In regard to the Edinburgh lectures I do not think Professor Scott gives sufficient emphasis to Dugald Stewart's remark that there was the manuscript drawn up by Adam Smith in 1755 in which he states his leading principles on Political Economy. That Smith's economic ideas were more or less framed as early as 1755 and that he was anxious to establish his exclusive right are of great importance. Dugald Stewart says that:

"The paper is at present in my possession. It is expressed with a good deal of that honest and indignant warmth, which is perhaps unavoidable by a man who is conscious of the purity of his own intentions, when he suspects that advantages have been taken of the frankness of his temper. On such occasions due allowances are not always made for those

plagiarisms, which, however cruel in their effects, do not necessarily imply bad faith in those who are guilty of them; for the bulk of mankind, incapable themselves of original thought, are perfectly unable to form a conception of the nature of the injury done to a man of inventive genius, by encroaching on a favourite speculation. For reasons known to some members of this Society, it would be improper by the publication of this manuscript, to revive the memory of private differences; and I should not have even alluded to it, if I did not think it a valuable document of the progress of Mr. Smith's political ideas at a very early period."

I believe that the concluding portion of Dugald Stewart's account is sometimes overlooked, where Adam Smith himself says that his views have all of them been the subject of his lectures:

> "They have all of them been the constant subject of my lectures since I first taught Mr. Craigie's class, the first winter I spent in Glasgow, down to this day, without any considerable variation. They had all of them been the subjects of lectures which I read at Edinburgh the winter before I left it, and I can adduce innumerable witnesses, both from that place and from this who will ascertain them sufficiently to be mine."

It is quite clear from this that Adam Smith was merely restating his views thirty years before the publication of the *Wealth of Nations* and before Hutcheson's *System of Philosophy* was published in 1755 and indeed before the Physiocrats had published anything. Adam Smith was indifferent to the plagiarising of Blair, Robertson and Ferguson. Principal Robertson, who is supposed to have borrowed Smith's ideas for the first volume of his *History of Charles V*, published in 1764 his book and the appearance of this led to Adam Smith's friends accusing him (Robertson) of plagiarism. A similar charge had similarly been made against Adam Ferguson in connection with his book on *The History of Civil Society* published in 1767. These events, however, were from ten to fifteen years later than the complaints of the same kind which are referred to in Adam Smith's paper in 1755. Plagiarisms which Adam Smith referred to with "honest and indignant warmth" seem not to apply to this but to the fact that Adam Smith was anxious to make it clear to the world that he was certainly not plagiarizing from others and

that his ideas in " Laissez Faire " were his own and date back to the Edinburgh lectures.

A final and most interesting discovery has been an early draft of the *Wealth of Nations*, a draft which was first referred to in Professor Scott's annual address to the Royal Economic Society on May 23rd, 1935. This draft was found among the papers of the Duke of Buccleuch at Dalkeith House and seems to have been sent about 1763 to Charles Townshend, the husband of the Countess of Dalkeith, the daughter and coheiress of the Duke of Argyle and the widow of the eldest son of the Duke of Buccleuch. She had been left with two sons by her first husband, the elder of whom succeeded his grandfather in 1751 as the Duke of Buccleuch. He was then at Eton under Mr. Hallam, the father of the historian. After leaving Eton it was proposed that the young Duke should travel on the Continent as was customary for the nobility of the time. Townshend after reading " The Theory of Moral Sentiments " decided on engaging Adam Smith as tutor to the Duke and Adam Smith and his pupil were in France from 1764 to 1766. This document appears to have been a draft to show Townshend what ideas Adam Smith taught his pupils or it may have been probably merely to interest Townshend himself. From 1755 to 1759 Adam Smith was engaged on " The Theory of Moral Sentiments " and after this was off the stocks he seems to have been occupied immediately with the *Wealth of Nations.* If this is so, Adam Smith's remark to his great friend Hume in a letter dated 5th July, 1764, no longer can be taken as correct. In his letter to Hume, it will be remembered, he writes " I have begun to write a book in order to pass away the time." We now know that the *Wealth of Nations* was not only not begun in 1764 but it was in preparation many years before, and even in manuscript long before 1763 and indeed many years earlier. Townshend had a great regard for Adam Smith and when he was Chancellor of Exchequer it will be remembered that Adam Smith was working with him at Downing Street in a financial enquiry (1766-67).

By the discoveries of Professor Scott, we have been able to obtain new facts and new kinds of facts regarding the Founder of Economic Science. We now know who his ancestors were and we have details regarding his life and character and it will be easy to understand better than before the *Wealth of Nations.* We are able to live again with him in Edinburgh and Glasgow and to realise his greatness as a scholar and a man of affairs. We have now indisputable evidence such as University records and contemporary accounts to show the very useful period of

thirteen years spent at Glasgow. In a letter dated 16th of November, 1787, when he was chosen Lord Rector of his old Alma Mater in Glasgow addressed to the Principal of the University it is interesting to find in regard to Glasgow University that:

> "The period of thirteen years which I spent as a member of that Society, I remember as by far the most useful and therefore as by far the happiest and most honourable period of my life; and now, after three-and-twenty years' absence, to be remembered in so very agreeable a manner by my old friends and protectors gives me a heartfelt joy which I cannot easily express to you."

The documents which form Part II of Professor Scott's great work are a mine of information. They are a gem which unlike the gold on the statue of Athene cannot be removed without destroying this work of art on which he has spent many years. Nothing more useful, nothing more scholarly, nothing more learned and helpful and nothing of greater interest has ever left the pen of the Adam Smith, the Professor of Political Economy of Glasgow University, than these contributions to the knowledge of the Founder of Economics. Adam Smith will continue to be of great interest to India because of the interest which he shows towards this country in his *Wealth of Nations*, a work which Bonar rightly says is "as near an approach to immortality as can fall to any economic writer." It is sometimes forgotten how much this country figures in the Classical Economists. James Mill was, it will be remembered, in the India House from 1819 to his death in 1836 and his distinguished son, John Stuart Mill, from 1823 at the age of 17 to his retirement thirty-five years later in 1858. They were at the India House from 10 to 4 and found time during these six hours for a good deal of extraneous writing while doing full justice to their official duties. John Stuart Mill never gave more than half of his time in office to office routine. His two great works—the *Logic* and the *Political Economy*—were, his biographer Bain says, written during office hours. Another Classical economist who was intimately connected with India was Malthus. Malthus was appointed to the first Political Economy chair in Great Britain, *viz.*, at the East India College, Haileybury. As Professor he was responsible for the training of East India cadets in Economics for the long period of 28 years from 1806 to his death in December 1834.

THE CEYLON RUPEE

BY

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I

Little is known about the monetary system—if there was such a system then in the present-day sense of the term—of ancient Ceylon. Histories and inscriptions show that coins called *kahāpanas* existed in vast numbers in the Island in very early times.[1] Next we hear of the *purānas* which according to Sir A. Cunningham were issued by 1000 B.C.[2] *Kahāpanas* were copper coins, *purānas*[3] were made of silver and both were tokens.[4] They varied greatly in weight[5] but had probably fixed face values. *Kahāpanas* and *purānas* were not minted in the Island; they were imported from South India.[6] Thus from the very early times Ceylon was within the South Indian currency area.[7] And (like South India) she was first on a copper token standard, *kahāpanas* being the copper tokens and later, on a silver token standard,

1 *Ancient Ceylon*, by H. Parker (1909), p. 489.

2 H. Parker suggests that the *purānas* found in Ceylon may be placed between the 11th and the 8th century B.C. His argument is based upon the estimated original weight of the coins, their weight when discovered and the average loss of weight by wear and tear per century of their existence. See *ibid.*, p. 465.

3 The original weight of the *purānas* was estimated by Sir A. Cunningham to be 56·6 grains. But, some specimens discovered, averaged only 33·8 grains which however is explained by the loss of weight owing to wear and tear.

4 The token character of the coins was probably owing to their scarcity arising out of the fact that there was no mint then in Ceylon.

5 The great variation in the weight of the coins was owing to faulty minting, change of standards with the change of dynasties and probably also clipping.

6 The importations of the coins from South India provides evidence of the close economic ties between Ceylon and the mainland, which, owing to the geographical position of the Island, was only natural.

7 Certain marked characteristics distinguished the coinage of South India from that of the North which, despite foreign irruptions and their consequent innovations, persisted until recent times. Gold and copper were the metals used in the South almost exclusively, while elsewhere silver was probably more common and remained current for a longer period than gold. (See, *The Coins of India*, by C. J. Brown, p. 57.) Ceylon has always remained within the South Indian coinage group.

purānas being the silver tokens.[8] But owing to scarcity of the coins the system of barter must have co-existed with money.

Kahāpanas and *purānas* were followed on the mainland by the gold *pagodas*.[9] Like the earlier coins they too varied greatly in weight:[10] they ranged between 50 and 60 grains.[11] Owing to their comparatively high value, the more commonly used coin was the *fanam*.[12] Small change was of copper called *cashu*, of which the English corruption was, '*cash*.'[13]

Ceylon joined South India in the change over from *purānas* to *pagodas*, *fanams* and *cashu* and the currency standard then

8 The Pochkhanwala Banking Commission, 1934, observed that, "before the foreign moneylenders came from India and Europe and opened their business relations with Ceylon, the old system of bartering appears to have been in vogue to a very great extent" (*Report*, Vol. 1, p. 23). The Portuguese, who were the first European settlers in Ceylon, arrived during the early part of the 16th century and the importance of Chettiars in the economy of the country dates back to only about 150 years. One might thus get the impression from the Commission's observation that before the 16th century, at the earliest, Ceylon economy was not a monetary economy but must have been some variant of a barter economy.

But Ceylon could not have built up a rich civilization, for which her ancient past is famous, without money.

9 The origin of the word *pagoda* is obscure. But the gold coin of Southern India was the native *varaha* or *hun* (or *pagoda*), the former word indicating the 'boar' *avatar* of *Vishnu* which figured on the coins from the 5th or 6th century onwards under the Chalukya dynasty; while *hun* (or gold) was their later Hindustani name given by the Muslims. It was a corruption of *Honnu* (Kanarese for 'a half *pagoda*') and it was to this coin that the Portuguese gave the name, *pardao de auro*.

The last of the *pagodas* was the Madras Government *pagoda*, bearing the eponymous device of a 'star' which gave it its name of *star pagoda*. It contained 42·048 grains of fine gold and was worth 7*s*. 5¼*d*. But, it was commonly valued at 8s. Before the *star pagodas* there were three other *pagodas*: the *Swamy pagoda*, the *Pondichery pagoda* and the *Porto Novo pagoda*. They were widely current in the South Indian currency area which included besides Ceylon, Mauritius, the Cape, St. Helena and New South Wales. In New South Wales the *pagoda* was declared legal tender in 1800.

In 1810 South India passed on to the silver standard and in 1818 the East India Company abandoned by Proclamation the coinage of *pagoda*, the rupee having become the standard coin of the Presidency. See Robert Chalmers: *A History of Currency in the British Colonies* (1893), p. 343, and Brown, *op. cit.*, p. 100.

10 "The considerable variation in the weight of the pagodas," says Brown "issued by different dynasties may be due simply to different local standards." Brown, *loc. cit.*, p. 57 footnote.

11 *Ibid.*

12 The word fanam is probably an Arabic version of the Tamil *panam*, meaning 'money.' Originally it was a gold coin containing 5 to 6 grains of gold and was based on the weight of a *Manjadi* (Adenathera pavanina). See Brown, *op. cit*

13 *Ibid*.

became a gold currency standard, *pagodas* and *fanams* being the gold currency. Later, however, debasement[14] set in, in the *fanam* currency, which drove *pagodas* out of circulation and the country was on a debased *fanam* standard.

II

The Portuguese dominated the country for about a century and a half preceding 1658. During the period they do not seem to have made any serious attempts to disturb the Island's currency system, probably because, they saw that Ceylon had a superior monetary civilization. India and Ceylon were then on the gold standard while Portugal and the rest of Europe were on either silver or bimetallism. Referring to this period Professor Rhys Davids observes, that, "no coins are known to have been struck by the Portuguese in or for Ceylon."[15] But there is contemporary evidence of Portuguese coinage in circulation in the Island.[16] It is possible, however, that these were not coined expressly for Ceylon as distinct from Goa.

Under Portuguese rule the Island's currency, then, continued to be the same as on the mainland, namely, *pagodas*, *fanams* and *cashu*. The popular monetary unit, we are told, was the "*fanaes*"[17] (*fanams*), which were made of "very base gold." The Portuguese coins, of which, probably, only a sprinkling passed into circulation were "Portuguez de ouro corrin por 15 Xerafins."[18] The Xerafin was equal in value to "pardao de tangas" which was the name the Portuguese gave to the *varāha* or *pagoda*[19] and one "pardao de tangas" was equal to "30 *fanaes da terra.*"[20]

[14] To start with, the fanam was probably one-tenth of a *pagoda* in weight and value, the *pagoda* weighing between 50 to 60 grains and the fanam, 5 to 6 grains (see footnote 1 above). Later it is referred to as one-sixteenth of a *pagoda* (see Chalmers, *op. cit.*, p. 342). In 1554, judging by Portuguese evidence the fanam, owing to debasement, fell to one-thirtieth of a *pagoda* and during the period preceding 1818, when the debased gold *fanam* was replaced by silver *fanam*, 42 *fanams* went to make a *pagoda* (See Thurston's *History of Coinage of the East India Company*, Madras, 1890, pp. 269—360). Thus the history of the *fanam* is a story of continuous depreciation.

[15] *Numismata Orientalia.*

[16] Robert Knox: *Historical Relation of the Island of Ceylon in the East Indies*, London, 1881.

[17] Subsidios para a historia da India Portuguesa (Lisbon, 1868), quoted by Chalmers, *op. cit.*, p. 350.

[18] *Ibid.*

[19] See footnote 9, p. 214.

[20] See Chalmers, *op. cit.*, p. 350.

But the Dutch who followed the Portuguese, during their occupation of the Island from 1658 to 1796, did not observe the same policy of non-intervention. For some time the *fanam* currency which went into a bad state of debasement, during the period, persisted, in the Island but it was soon driven out by the flood of paper and copper tokens issued by the new rulers.

Two years after their conquest they put an interdict on the circulation of Portuguese coins and in conformity with their general colonial currency policy all Government accounts were kept in Dutch denominations of money and Dutch coins were pushed into circulation. But, owing to its importance and popularity they could not ignore[21] the *fanam* and had to put upon it a fixed value in terms of the gulden: it was adopted as a quarter-gulden. Among the Dutch coins the copper stuivers passed into currency in larger numbers than the rest. They were tokens minted in Holland and at first owing to their scarcity were " progressively over-valued."[22] After a time they " constituted the ordinary medium of internal circulation,"[23] alongside with the *fanam*. The exchange value between *fanams* and stuivers depended upon " the stages of debasement through which the coined *fanam* passed in South India."[24]

The monetary system of Ceylon during the Dutch period presents certain features of interest. The Dutch introduced the practice of denominational currency, under which the money of account differed from the money in circulation and to which it bore no family relationship. Public accounts were kept in gulden and the local currency was valued in terms of it for the purpose.[25]

During this period the Island saw the beginnings of an exchange standard in germinal form, which was destined to be,

21 But private accounts during the Dutch period were kept in " Ryksdaalders " (rix-dollars) which had found their way into the circulation from abroad both in Ceylon and South India in the course of external trade. Rix-dollars were valued at 3 gulden each.

22 See Chalmers, *op. cit.*, p. 350.

23 *Ibid.*

24 *Ibid.* But it is difficult to see how at the same time it was possible to maintain a fixed ratio, as we are told was done between the *fanam* and the gulden. A possible explanation, however, would seem to be that the gulden did not remain in circulation. Even those that might have been current must have been speedily driven out when they got under-valued by the fixed ratio, consequent upon the depreciation of the *fanam*.

25 This practice was reintroduced by the British in 1825 and lasted until 1872. See p. 286.

in its present version, the accepted standard of the country. The copper stuivers were "readily exchangeable at the Dutch Treasury for bills on Holland."[26] Since the convertibility was from Dutch stuivers into bills expressed in Dutch currency it is probable that the rate was subject to a fixed norm. If so, the stuivers part of the local currency system could be described to have been on a gulden exchange standard. But, the *fanam*, which formed a large proportion of the total circulation, bore no fixed ratio to the stuivers and was on a standard by itself.[27]

The Dutch rule saw a multiplicity of coins entering into circulation. Besides the *fanam* and the stuiver there were current, (as in South India) the *Ryksdaalder*,[28] the *Moorish Ducat*, the *Provincial Dollar* (or the *Ducatoon*), the *rupee*, the *pagoda* and the *Xerafin*.[29] These found their way here in the course of foreign trade.

The Island had the first taste of a paper currency during this period. Under pressure of "financial difficulties of the Island,"[30] Governor Vandergraaf issued in 1785, Treasury notes called *Kredit brieven*, expressed in Ryksdaalders and convertible into stuivers at the rate of 48 stuivers a Ryksdaalder. In practice, however, these notes remained inconvertible. In December 1795, there were issued another class of notes called "cash notes" in denominations varying from 1 to 10 Ryksdaalders. These, unlike the Kredit brieven, were convertible on demand into stuivers. The "financial difficulties" which had caused the issue of notes probably persisted and led to over-issue and depreciation. The Dutch also dumped on the country a mass of copper stuivers.[31]

The depreciated paper drove out of circulation all the metallic currency (except copper stuivers) so that, "for the ten years before our conquest" wrote Governor North in 1799,

26 See Chalmers, *op. cit.* p. 350.

27 The East India Company improved upon the Dutch system by converting unlimitedly all the accepted media of local circulation without prejudice, into bills on London at a fixed rate. See footnote 40, p. 219.

28 The Ryksadaalder was a Dutch silver coin. See Palgrave's *Dictionary of Political Economy*, Vol. III, p. 314.

29 Chalmers, *op. cit.*, p. 350.

30 Bertolacci : View of Ceylon (London, 1817), quoted by Chalmers, *op. cit.*, p. 351.

31 Governor North wrote in 1799 : "The circulation is carried on in copper, of which too great a quantity has been thrown into the country, which quantity will go on increasing and can never diminish, as it is not in circulation on the continent." Quoted by Chalmers, *op. cit.*

" there was no specie in the country."[32] Copper stuivers continued to be in circulation for the obvious reason that their metal value was below their face value by a greater margin than the extent of depreciation of paper notes: the value in exchange of these tokens depended on the degree of depreciation of the paper.

Thus under the Dutch rule the currency system of Ceylon was subjected to many changes. When the Dutch arrived the coin in circulation was the *fanam* made of " very base gold " and the larger monetary unit was the *pagoda* (which, however, unlike the *fanam* was pure gold). Their rule saw among other things the introduction of several varieties of coins into circulation, the beginning of an exchange standard, issue of paper currency convertible and inconvertible and depreciation. When they left, the Island was flooded with paper notes and copper tokens, which drove out all specie from the country. They found the Island on a debased gold standard and left it on an inconvertible paper standard. During the regime of depreciated paper the local currency standard differed from the currency standard on the continent, since neither the Treasury notes nor the copper stuivers[33] were current in South India.

III

Unlike the Dutch the East India Company did not put an interdict on the currency of the rulers of the Island before them. They accepted the monetary system as they found it and almost forthwith started reorganising and improving upon it. The Government bought over practically[34] all the inconvertible paper outstanding at 60 per cent discount.[35] The depreciation of paper had brought down the value of stuiver tokens close to their

[32] Chalmers, *op. cit.*, p. 351. The business community by now had been keeping accounts in terms of rix-dollars and it continued as a monetary unit of account even after it was driven out of circulation by depreciated paper. Says Bertolacci : " There was no particular coin for the rix-dollar; it was merely an ideal one, divided into 12 *fanams* and each *fanam* divided into 4 stuivers." See View of Ceylon, *loc. cit.*

[33] See footnote 31, on p. 217.

[34] Only a small amount of the notes was not presented to the Company; but most of it must have been either lost or destroyed.

[35] At the surrender of Colombo the British Military officers had guaranteed 8 per cent on the nominal value of the Kredit Brieven to its holders. This promise was more than made good. The notes, Kredit Brieven as well as the cash notes of 1795 were bought over at 40 per cent of their face value. (See Chalmers, *op. cit.*, footnote 351.) It is possible, however, that during the period of political uncertainty the value of the Dutch Treasury notes fell below the level commensurate with the

intrinsic value,[36] which had rendered them inconvenient for effecting larger transactions, owing to their bulk and weight. Governor North, therefore, issued in March 1800 currency notes on the Public Treasury in denominations of 25, 50 and 100 rix-dollars. These notes were merely substitutes for copper "into which they were to be freely convertible at the Treasury"[37] at the rate of 48 stuivers a rix-dollar.[37a] The minimum denomination of 25 rix-dollars for the notes shows that they were only meant to serve the requirements of larger exchange transactions. They filled the gap caused by the withdrawal of the old Treasury notes. Meanwhile in conformity with Governor North's "principal object to diminish the circulation and raise the value of the copper currency,"[38] no additions had been made to the stuiver coins in circulation. The first issue of these was not made until 1801.[39]

The lowest denomination of the notes being 25 rix-dollars they did not solve the problem wholly. For, stuiver currency could not be used with convenience except for purposes of small change. In 1803, therefore, silver rix-dollars were struck in the Island.[40] These were to pass current at 2*s*. 1 3/5*d*. each

state of inflation. But with the advent of *Pax Britannica* and seeing that the British had no intention of demonetising Dutch currency, the notes must have recovered in value to about the point at which they were bought over by the new Government.

36 The exchange value of the stuivers was probably not more than 10 per cent higher than their intrinsic value. For, Governor North in one of his despatches to the Secretary of State for the Colonies observes that the minting of stuivers would yield about 10 per cent profits. See footnote 40, below.

37 The first issue of the notes made in March 1800 totalled 30,000 rix-dollars. But the "convenience and the utility of these notes" which "were soon perceived, not only by the Europeans, but the native inhabitants of the Colony" induced the Governor to "make a further issue to the extent of 45,000 rix-dollars making in all 75,000 rix-dollars." See despatch of Governor North to the Secretary of State for the Colonies, dated 18th February, 1801.

37a See footnote 40, below.

38 See footnote 40, below.

39 They were minted both in Ceylon and in Great Britain. In Ceylon it was done under contract with a private individual, Adrian Pietre Blume. At first 36 stuivers were struck per pound English. But later, in 1803, 50 were stuck, instead, bringing down their intrinsic value to about 59 per cent of their face value. They were to pass current at the rate of 48 stuivers to a rix-dollar and 4 stuivers a *fanam*. By 1803 stuivers came to be commonly called pice.

40 Like the stuivers they were minted by Blume under contracts dated 4th February 1803 and 8th June 1803. Under the former contract each rix-dollar was to have "the intrinsic value of 20*d*. sterling and intended to be circulated at the rate somewhat more than 2s. ½*d*., fifteen rix-dollars being equal to 32*s*.," *i.e.*, 50 rix-dollars were to be coined into one Dutch pound of silver. But very few coins

(9 3/8 rix-dollars = £1) and had a metallic content of about 65 per cent of their face value.[41]

The artificial value of the silver rix-dollar tokens and the copper stuivers was maintained by the sale of bills at fixed rates by the Treasury on Calcutta and London. Bills on Calcutta were sold at the rate of 3 3/4 rix-dollars to a *star pagoda* and bills on London at 9 3/8 rix-dollars a pound sterling;[42] payment to the Treasury for these bills could be made in rix-dollars (paper or silver) or in copper tokens. Thus, Governor North within less than a decade of British occupation of the Island extricated her currency from the confusion into which the Dutch had left it and placed it on a sound footing. The simultaneous link of the rix-dollar with the pound sterling and the *star pagoda* is suggestive of the recognition of the fact that no scheme of monetary reform for Ceylon could possibly ignore the intimate economic ties of the country with India. The Ceylon currency was now on a Sterling—*Pagoda* Exchange Standard.

With the stabilisation of the currency, metallic coins, which were driven out by the depreciated Dutch Treasury notes, returned to the Island. They passed into circulation at varying rates of exchange with the rix-dollar which was now on the gold standard by virtue of its connection with the *star pagoda* and the pound sterling. The ingress of these coins did not affect the importance of the rix-dollar as the standard coin of the Island, in terms of which private as well as public accounts were kept, revenues were received and Government disbursements were made.

IV

But it was not long before the currency system got disorganised once more. The Government began issuing notes to cover budget deficits and tempted by minting profits over-issued

were minted to this specification, the large majority of them being coined under the second contract by which "one English pound of silver (or 17 Spanish dollars) (were) to produce 50 rix-dollars. or 100 half rix-dollars" of the same standard of fineness as Spanish dollars. The sterling value of these dollars was 1*s*. 4⅜*d*. or 3¼*d*. less than the specification of the contract dated 4th February 1808. But the value of these coins was to be 25 3/5*d*. per rix-dollar, 9 3/8 rix-dollars being equal to £1. See Chalmers, *op. cit.*, p. 353.

41 It may be noted that the percentage margin of difference between the face value and the bullion value of rix-dollars was wider than that in respect of stuiver tokens.

42 The sterling equivalent of the rix-dollars and the *star pagoda* at these rates for bills on London and Calcutta would be as follows :—

1 rix-dollar = 2*s*. 1 3/5*d*.; and 1 *star pagoda*-8*s*.

copper stuivers and silver rix-dollars. The inflation thus caused rendered difficult the maintenance of convertibility and at the close of 1805 the sale of bills on Calcutta and London at fixed rates was abandoned and the Government "invited public tenders at competitive rates."

As depreciation progressed and exchanges fell the metallic currency that had returned into circulation after stabilisation, was melted or exported, the heavier coins first and the lighter ones after, as they reached their respective "melting points." And when exchanges depreciated by nearly 35 per cent it was apprehended that "even the silver rix-dollars might be exported." To prevent this a remedy was sought by lowering the standard of fineness of the dollar to 833⅓.[43] 692,000 of these new rix-dollars were (apparently) struck. Obviously, it was not realised that the remedy for depreciation was not a further issue of money but a curtailment of it. The new rix-dollars made the situation worse: they accelerated the downward movement of the exchange rate and the older rix-dollars of higher millesimal fineness speedily disappeared from circulation. Even the "oldest and the heaviest of the copper coins" accompanied them.[44]

But connection between the excess issue of money and further depreciation was still not clearly appreciated. On the 10th March, 1812, by Proclamation, the sterling rate of issue of the rix-dollars was lowered to 1*s*. 9*d*. and on 14th November of the same year a further coinage of rix-dollars was ordered to be struck at a mint established and conducted by Bertolacci. This led to a further fall in the exchanges, which, by the end of 1813 came down to 1*s*. 1⅓*d*. and practically all the silver as well as the heavier copper coins left the country. Rix-dollars came out of the mint only to be exported. Failure nevertheless to see the root cause of currency depreciation is evidenced in the Governor's Minute dated July 16, 1814, which observed, that, in view of the scarcity of silver and copper coins, "no better expedient has

43 These coins were minted under a fresh contract with Blume dated 17th February 1808 according to which "one English pound of pure silver and one-fifth of alloy of Japan copper added thereto shall produce to Government sixty-six dollars." That is to say, the weight of the coins as specified in the contract of June 1803 was retained but the millesimal fineness stated in the contract of February 1803, namely, 833⅓ was readopted. See Chalmers, *op. cit.*, p. 353.

44 The value of the metallic content of the copper stuivers minted in 1803 was about 59 per cent of their face value; those minted earlier were very much heavier and the ones minted in England in 1802 were intermediate in weight to those minted in Ceylon in 1801 and 1803 respectively. (See footnote 39, p. 219.) It was the latter stuivers that went out of circulation.

presented itself than that of following the measure lately adopted in the Mother Country of issuing tokens." Consequently silver "*fanam* tokens" of the total value of 110,000 rix-dollars were issued to pass current at the old rate of 12 *fanams* to the rix-dollar,[45] and at which rate they were to be "receivable at the General Treasury and Cutcheries of the Island."

The currency now consisted of depreciated paper rix-dollars and subsidiary coins, namely, silver *fanam* tokens, copper half-*fanams* (two stuivers), stuivers, half-stuivers, quarter-stuivers and one-eighth stuivers.[46] The currency standard, therefore, was an inconvertible paper standard.[47] It continued to be such until 1825. The situation bagan to improve in 1820, in which year the paper currency in circulation "had been shrinking." And as the exchange value of the dollar began recovering, as a consequence, metallic currency reentered into circulation and we read in the Treasury Minute of 11th February, 1825 (which reviews the currency system of some of the Colonies): "the currency of the Island is very various and consists of rix-dollars coined in England for its use, of many of the coins of India, of Spanish dollars and of paper rix-dollars." The rupee circulation was apparently on the increase and on the 22nd March and 31st December the new Madras rupee and quarter-rupee (marked in Ceylon with a crown), respectively, were declared current by local Proclamation at $1\frac{1}{3}$ rix-dollars for the rupee and four Ceylon *fanams* for the smaller coin. This was probably the first official recognition of the rupee.

The contraction of the circulation—paper notes had fallen from about $2\frac{1}{2}$ million rix-dollars in 1820 to about $1\frac{1}{2}$ million rix-dollars in 1825—and the general tendency for improvement of the currency system was reflected in the state of the exchanges.

45 Intrinsically the rix-dollar was worth 16 of the new tokens.

46 These copper coins were minted by Bertolacci at the old rate of 50 stuivers to a pound of copper.

47 This character of the standard was not altered by the Treasury order (9th October 1821), issued at the instance of the Commissariat, to the Royal Mint to supply 400,000 silver rix-dollars, to meet the dearth of metallic money. For. the notes continued to be inconvertible. The weight of these rix-dollars was $138\frac{2}{3}$ grains (i.e., $\frac{1}{3}$ the accepted weight of the Spanish dollars, from which they were struck) and were of the same fineness as the Spanish dollar, namely, $891\frac{2}{3}$ per mille. If we value the Spanish dollars at 4*s*. 4*d*. they were worth intrinsically about 1*s*. $5\frac{3}{4}$*d*., but were ordered to pass current as the equivalent of 1*s*. 9*d*.

Since by now the currency system had begun to improve, this last issue of the rix-dollars remained in circulation, unlike the preceding issues, which were driven out by depreciated paper and copper.

Treasury bills on London were sold in 1825 at the rate of 1*s*. 4*d*. per rix-dollar.

In 1825 steps were taken by the Home Government to reorganise the currency system of the Island in common with that of the other Colonies. These were embodied in an Order in Council dated 23rd March, 1825,[48] which laid down that:

(1) payment in British silver of 4*s*. 4*d*. be "considered equivalent to the tender or payment of one Spanish dollar" in Colonies where the Spanish dollar passed current by virtue of law or long established practice;

(2) in Ceylon, where "the circulation consists of silver and paper rix-dollars, as well as a variety of other coins which are generally received and paid with relation to their value as compared with rix-dollars," payment of 1*s*. 6*d*. should be deemed to be equivalent to payment of 1 rix-dollar;[49] and

(3) British copper coins be legal tender in all the British Colonies up to 12*d*.

This Order in Council was supplemented by Regulation No. 8 of 1825[50] (dated 4th July, 1825). This required all Government accounts to be kept in British denominations of pounds, shillings and pence and[51] it declared British silver coins,

48 This Order in Council resulted from the Treasury Minute of February 11, 1825 which reviewed the currency systems of the Colonies and outlined a uniform measure of reform. The Minute, before its provisions were embodied in the Order in Council, was circularised among the Commissaries of the several Colonies for eliciting their opinion.

49 The reason for this valuation of the Spanish dollar and the rix-dollar for concurrent circulation with British silver was, that, "as the substitution of British silver and copper currency for the Spanish dollar, even in the payments from the military chests to the troops, can only be gradually effected, and as it may, in many cases, be still expedient to employ that coin as a medium of payment at a fixed rate as compared with British currency."

50 This regulation was passed by the Ceylon Government to embody the instructions contained in the Secretary of State's despatches, No. 11, of 14th March, 1825, and No. 33 of 18th May, 1825. The latter conveyed the Order in Council of 23rd March, 1825.

51 Hitherto public accounts were kept in rix-dollars, *fanams* and *challies*, in terms of which also were imposed, rates, taxes, etc. Government disbursements too were similarly made, sterling salaries of the troops and the services were converted into rix-dollars at the rate of 1*s*. 9*d*. per rix-dollar although the intrinsic and the market values of the coin were much less.

the silver rix-dollars coined at the Royal Mint, London, in 1821[52] and the Treasury notes expressed in rix-dollars, unlimited legal tender in Ceylon.[53] Rix-dollars were valued at 1*s.* 6*d.* sterling.[54] Also, a Government notification announced that bills on London at 30 days' sight could be bought unlimitedly at the Treasury at the rate of £103, paid in legal tender money,[55] per £100 worth of bill.[56]

The Order in Council of 1825 was a revolutionary measure.[57] Without paying attention to local peculiarities it

52 See footnote 47, p. 222.

53 To meet situations of inadequate supplies of legal tender the Governor of Ceylon issued a Minute on the 14th July, 1825, declaring that, "when it may not be in the power of the Government to pay" its servants and troops in legal tender money "the coins mentioned in the annexed schedule be issued at the rates specified therein . . . ." The schedule gave sterling values to the French and Sicilian francs, Spanish dollars, U.S. dollars, the Calcutta, the Bombay and the Surat rupees. The valuation was on the basis of a price of 5*s.* 2d. per oz. of silver, and the Calcutta rupee was declared worth 2*s.* 1*d.* and the Bombay and Surat rupees, 1*s.* 11*d.*

54 By proclamation the rix-dollars were officially rated at 1*s.* 9*d.* in March 1812. (See footnote 45, p. 222. But owing to inflation their market value had fallen appreciably below this level. The rate fixed by Regulation 8, 1825 represented the intrinsic value of the silver rix-dollars minted in 1821. The Regulations also prescribed the sterling equivalents of local subsidiary coins. These were as follows :—1 *fanam*—1½*d.*; ½ *fanam* = ¾*d.*; 1 pice (or stuiver) = 3/8*d.*; ½ pice (or ½ stuiver) = 3/16*d.*; 1 *challie* = 1/8*d.*

55 The Treasury Minute of 11th February, 1825, suggested that the rix dollars be valued at 1*s.* 6*d.* (instead of 1*s.* 9*d.*) which approximated to their metallic content and "in order to prevent paper rix-dollars from falling below that value," the paper notes received in payment for bills on London be withdrawn from circulation. They were to be forwarded to Great Britain as "vouchers for the bills drawn."

56 The amount paid into the Treasury for bills on London was utilised for making payments to the troops, the civil service, etc. And when enough bills were not sold out and the Governor required funds "beyond the amount so paid into the Treasury at the prescribed rates, he was to negotiate the bills for Spanish dollars, rupees, or any other description of coin at the best terms he could obtain." These were to be paid out by weight at the rate of 5*s.* 2*d.* per ounce. Secretary of State's Despatch No. 11 of 14th March, 1825.

57 Several factors directly or indirectly contributed to the promulgation of this Order in Council. In some Colonies (*e.g.*, American Colonies) difficulties of circulation were caused by the "successful revolt of the Spanish Colonies in America," which had "cut off by 1820 the supply" of the Spanish dollar which was their standard coin. Also, the currency of the American Colonies was in a bad state of deterioration being "cut" and "plugged." In the case of such Colonies the Order in Council only took advantage of an opportunity for much needed currency reform.

The Act of 1816 had successfully established gold non-metallism in the United Kingdom with a token silver coinage "which for the first time for

decreed that British silver do pass current wherever the roar of the British Lion was heard. While in point of broad policy the measure was ill-advised it was defective in essential details, which proved fatal to it. Its rate of valuation of the Spanish dollar and the rix-dollar in terms of sterling for concurrent circulation with the latter was 2*d.* per ounce higher than the gold price of silver in the open market.[58] This over-valuation of the locally current coins by 3⅓ per cent, loaded the dice in their favour, which, drove British silver out of circulation.[59] Since British silver coins were on the gold standard, the Order in Council can be said to have in effect introduced bimetallism in the Colonies and what followed was only the common experience of the bimetallic countries.

Also, the rate for the sale of bills, except, perhaps, for the Australian Colonies was too high. Even if British Silver had remained in circulation none would pay a premium of 3 per cent

centuries" had remained in circulation. The new mint was now in full working order and the circulation of British silver in the Colonies might enable it to work to capacity. Since these coins were tokens the profits of coinage would also then "swell the Imperial" Treasury. Being a success at home they may prove so abroad also and "form a (silver) link between the Colonies and the mother country."

Vast payments in sterling had to be made in the Colonies to troops and the services and owing to the "conflicting and unsound systems of Colonial currencies" British currency had to be shipped to them. The expense involved in this could be avoided if British currency could be made available locally.

The real justification for the measure, however, was to be found in the fact that the Spanish dollar which was "the universal coin of three centuries, had lost its supremacy." Its dominion was disintegrating into rival currency areas, the chief among which was destined to be the sterling area.

58 The sterling price of silver laid down in the Order in Council was 5*s.* 2*d.* per ounce. This price dated back to 1601 and had reference to the bimetallic system. The market price of silver at the time, however, was only 5*s.* per ounce.

59 In Gibralter where the doubloon was supreme, the prevailing ratio undervalued sterling by about 8 per cent which rendered its circulation hopeless. The newly arrived boxes of British silver were bought up at the price of one doubloon for 69*s.* 4*d.* and immediately shipped back to England "unopened and with seals intact." (See Chalmers, *op. cit.*, p. 25.)

In other Colonies, the Treasury complained to the Commissariat Departments that "when British money is issued from the military chests to the paymasters or others" they exchange these "for dollars or other circulatory medium" and make payments in terms of the latter instead of in British money. This yielded to the paymasters a profit measured by the margin of difference between the market price and the statutory price of silver. British silver, instead of remaining in circulation returned to the Treasury in payment of bills on London, since payment in local silver coins was, 8d. per oz. of their weight, costlier. The Treasury urged the discontinuance of this system and advised that the troops etc, be paid in British silver money.

for the bills, when the coin could be shipped to Great Britain at less expense, or, buy a bill that could be bought in the market at a lesser rate. This would become possible when the Colonial exchanges with the Mother Country turned in favour of the former or was less adverse than 3 per cent. In fixing a rigid official one rate for all the Colonies and paying no regard to seasonal variations, the Treasury ignored the complications that might follow fluctuation of exchanges in the open market.

The working of this monetary reform in Ceylon was not different from the experience of other Colonies. In the case of Ceylon, further impediments to its success arose out of the close connection between the Indo-Ceylonese exchanges. When the rupee-sterling exchanges in Calcutta went against India by more than 3 per cent, rupee coins flowed into Ceylon to take advantage of the fixed rate for the sale of bills, and, when they turned in favour of India the Island was drained of its silver which flowed to Calcutta to buy bills on London. This caused great embarrassment to the Treasury and the Public. Over-valuation of rix-dollars prevented British silver from entering into circulation in appreciable numbers and the rigidity of the rate for the sale of bills on London was instrumental, as will be seen below, in rendering the Indian rupee the standard coin of the country.

At first, however, since exchanges being in favour of Great Britain and against India and Ceylon, the new system "appears to have worked for some years with tolerable smoothness." No difficulty was experienced in selling bills on London at the Official rate[60] to meet in full the requirements of the Commissariats and between 1825 and 1833, 1,522 million pounds worth of bills were sold. Paper rix-dollars received at the Treasury in payment for bills were cancelled[61] and, under authority of Regulation No. 8 of 1827, were replaced by a new paper currency to the extent of about £90,000, expressed in sterling. During the period rupees were imported in large numbers, the proportion of which in the total circulation, as a consequence, increased.

Difficulties, however, arose in 1833. Rupee-sterling exchanges in Calcutta turned in favour of the rupee and forthwith the demand in Ceylon for bills on London ceased. Remittances

60 Seeing that the premium of 3 per cent for the sale of bills was excessive for all Colonies (except, perhaps, the Australian ones), in January 1827, the Treasury instructed the Commissariat Department that the premium be lowered to £1 10s. per cent. (See Chalmers, *op. cit.*, p. 26.) This rendered it advantageous to buy bills in Ceylon when the rupee was at a discount of only 1½ per cent as against sterling.

61 See footnote 55, p. 224.

in payment for imports were made by purchase of sterling in Calcutta for which rupees were eagerly sought and sent across the continent. And the Government with bills unsold, having no funds on hand, were "obliged to negotiate a portion of its bills in India, and import specie from thence." During the three years ending with 1836, £131,135 worth of rupees were thus imported. They were bought in Calcutta at a premium, brought down to Ceylon at Government expense and paid out at 2*s.* 1*d.* per sicca rupee and 1·11*d.* per Bombay and Surat rupees, on the basis of the official price of 5*s.* 2*d.* per ounce of silver.[62] Nor did the rupees, once they were brought down here, remain in circulation. They speedily returned to India for convertion into sterling in the Calcutta exchange market.

Before the situation became impossible, however, rupee-sterling exchanges fell in 1836 and sicca rupees were worth, in the exchange market, 1*s.* 11*d.* or about 4½ per cent below par as determined by the gold price of silver. It was now cheaper to buy sterling at the official rate in Ceylon and rupees flowed in as speedily as they had left previously. They were exchanged for legal tender currency locally with which to pay for the bills at the Treasury. But soon the tide turned again. For, "not long afterwards" the sterling value of the (sicca) rupee rose to 2*s.* 2*d.* and 2*s.* 2½*d.* or to a premium of 8 to 10 per cent. Sterling bills in Ceylon again would not sell and the Government "was obliged to import rupees from India at a heavy loss." They were in the un-enviable position of having to buy rupees (which were now the Company's rupees)[63] in Calcutta at the rate of 2*s.* 0*d.* or 2*s.* 0½*d.* per rupee, meet the cost of import and pass them on at the rate of 1*s.* 10*d.* per rupee.[64] And since they were sent back to India by businessmen to buy sterling, the Government was forced to import rupees every time they required cash to pay the troops, the civil service etc.

62 See footnote 53, p. 224.

63 Under the Coinage Act of August 1835 the Bombay and the Madras rupees (which were identical in weight and fineness) were made legal tender in all the possessions of the Company in India and came to be known as the Company's rupees. They weighed 180 grains of silver eleven-twelfths fine.

64 The Governor by a Minute dated 14th December, 1833, had lowered the sterling valuation of the rupee. Observed the Minute : "The Governor is pleased to give notice, in reference to the Minute of the 14th July, 1825, that " when payment in legal tender currency is not possible, " the undermentioned coins will be issued at the rates, herein specified, in view of the rates specified in the Minute abovementioned, *viz.* :—1 Spanish dollar=4*s.* 2*d.*; 1 sicca rupee=2*s.* 0*d.*; 1 Madras or Bombay rupee=1*s.* 10*d.*"

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This was an extremely unsatisfactory state of affairs arising wholly out of the provision that bills on London could not be sold in Ceylon at any rate other than a premium of 3 per cent irrespective of the state of the market rate of exchange. And it was a strange irony of fate that they could negotiate the bills at the market rate in India! If they were free to do this in Ceylon, rupees would not have made themselves scarce. Businessmen would then have been saved the expense of transporting them to Calcutta and the Government of repeatedly bringing them back again to Ceylon. The Government, however, attributed the difficulties to the valuation of the rupee at 1*s*. 10*d*., and imagined that if this rate could be raised sufficiently high rupees would cease to fly back to India. Accordingly, a Minute was issued by the Governor on the 26th September, 1836, rating the rupee at 2*s*. 0*d*.[65] But, rupees nevertheless continued to flow back to India.[66] For, it was still cheaper to buy sterling in Calcutta than pay for it a premium of 1½ per cent in Ceylon.[67]

65 This Minute became famous in Ceylon currency history, as will be seen below. It ran as follows :—" The Right Hon'ble the Governor is pleased to give notice that the undermentioned silver coins will be put in circulation in Ceylon at the following rates, *viz*., the Company's rupee—2*s*. 0*d*.; the Company's half-rupee—1*s*. 0*d*.; the Company's one-fourth rupee—0*s*. 6*d*."

66 The export of rupees was owing to the Island's adverse balance of payments and their overvaluation (to 2*s*. per rupee) could prove no corrective to it. The new ratio of the rupee only reduced or eliminated the loss suffered by the Government on account of the importation of rupees from Calcutta.

An effective method of meeting the situation, however, would have been to sell bills in Ceylon *at the market rate*. In liquidating the Island's debts, sterling drafts on London by the Treasury had always played an important part. When the rupee in Calcutta was at a discount against sterling by at least 1½ per cent this system of the sale of bills at the officially fixed rate worked with tolerable smoothness. But it was destined to break down when the rupee exchanges were less adverse or turned into a premium. It embarrassed the Government and inconvenienced the public. And since bills were negotiated by the Government in the Indian market Treasury drafts on the Rome Government continued, as formerly, to be the liquidating factor of the country's adverse balance of payments. Only instead of being effected through the Treasury in Ceylon it was now effected through the Calcutta door, which, while serving no good purpose in itself involved a wholly avoidable and unnecessary economic waste.

67 Supposing that rupees could now be exchanged for legal tender in the market at the rate of 2*s*. each, for buying bills on London, or, they were acceptable to the Treasury itself at that rate, to buy a bill worth £100 one would have to pay Rs. 1015. But for this amount one could buy a private bill worth £101. 10*s*. in the Calcutta exchange market at the rate of 2*s*. per rupee. This would allow a margin of profits even after meeting the expenses of transporting

The Minute, however, while it failed to serve the purpose it was intended for, had a far-reaching effect which probably was not contemplated then. Since the intrinsic value of the rupee was only 1*s.* 10*d.* the Minute over-valued it by about 9 per cent. This enabled the rupee to drive out of circulation rix-dollars and British silver.[68] And when rupees flowed into the country to take advantage of the fixed rate for the sale of bills on occasions when they were at a discount in the Calcutta exchange market, they remained in circulation.[69] Thereafter, the rupee became the " sole measure of property " and " the real metallic currency of the Colony "[70] although not legal tender *de jure.*[71] But this position of the coin was not generally realised at the time and, apparently, it was universally believed (until a generation or so later), when the correct legal position was conclusively discussed by a Commission),[72] that the Minute of 1836 had the force of law.

This was the culmination of the episode which started with the Treasury Minute of 1825. As a consequence of the misguided attempt which proved abortive, to introduce British silver currency in the country, there obtained between 1825 and 1836 a state of currency tension, which caused not a little embarrassment to the Government and inconvenience to the public. Combined with the final triumph of the rupee, it demonstrated forcibly the futility of attempting to draw a country out of its natural currency area to which it had been tied by long established tradition, intimate economic relationship and geographical proximity.

During this period British silver coins and rix-dollars (both of paper and silver) were unlimited legal tender[73] and British

rupees to Calcutta. To prevent the flight of rupees from Ceylon and to divert the demand for bills to the Treasury in Colombo, the valuation of the rupee should have been sufficiently high to eliminate this margin of profits.

68 At the exchange value of 1*s.* 11*d.* sicca rupees, the intrinsic worth of which was about 2*s.*, were at a discount of 4¼ per cent. It was therefore advantageous to import rupees to Ceylon, exchange them for local currency at 2*s.* each and pay 1½ per cent premium for bills on London, payable 30 days after sight. See, Chalmers, *op. cit.*, p. 356.

69 British silver was probably exported to Great Britain and rix-dollars sent to the Indian mints for conversion into rupees.

70 Minute of the Governor dated 11th March, 1866, submitted to the Secretary of State for Colonies.

71 See p. 233.

72 See footnote 88, p. 233.

73 Treasury notes in sterling denominations issued under Regulation 8 of 1827, were also unlimited legal tender.

copper coins and locally current copper tokens, namely, *fanams*, stuivers (now called pice) and *challies*, legal tender up to 1*s*. There were also current, in addition, silver coins like the rupee and the Spanish dollar; but they had no recognised legal status.[74] Public accounts were kept, under Ordinance 8 of 1825, in pounds, shillings and pence.[75] The ratio between rix-dollars and British silver for concurrent circulation was officially fixed[76] and both were convertible on demand into bills on London at the Treasury, first at the rate of £103 per £100 worth of bill and after 1827 at the rate of £101 10*s*. per £100 worth of bill.[77]

Since British silver represented a fixed quantity of gold and was on the gold standard, the currency system of Ceylon, between 1825 and 1836 could be described as a bimetallic system, the ratio between rix-dollars and British silver representing the "mint ratio." And, owing to over-valuation of rix-dollars, since British silver could not enter into circulation in appreciable numbers it might appear that in practice the standard would work as a silver monometallic standard.

But, the provision for convertibility of rix-dollars into sterling at a fixed rate, placed the rix-dollar on a sterling exchange standard, during periods when there was a demand for sterling bills at that rate. On other occasions, however, it remained a silver standard *de facto*. Ceylon currency, therefore, between 1825 and 1836 was on Bimetallism *cum* Sterling

74 Minutes issued by the Governor on 14th July, 1825, 14th December, 1633, and 24th September, 1836, however, took cognisance of their importance in the monetary circulation by announcing that when it may not be in the power of the Government to make payments in legal tender money these coins will be issued at rates specified in schedules to the respective Minutes. (See footnotes 64 on p. 227, 65 on p. 228.)

The schedule to the Minute of 1825 included besides the rupee, French and Sicilian francs, Spanish dollars and U.S. dollars; the schedule of the next Minute includes only the Spanish dollar and the rupee, while the last one speaks merely of the rupee and its subdivisions. This may probably be taken to indicate, how in the course of these years the importance of the currencies declined and that of the rupee increased.

75 "But the mercantile community did not follow the example till 17 years later, whilst the natives of the country have not done so to the present day—all native accounts being still kept in either ri—dollars, *fanams* and *challies* or in rupees, annas and pies." Thus among the public, "those who keep their accounts in pounds, shillings and pence constitute an infinitesimal minority of the account-keeping community" See, Further Papers Relating to the Currency of Ceylon, 1871, pp. 6-7.

76 See p. 223.

77 See footnote 60, p. 226.

Exchange Standard *de jure*, which, in practice, was sometimes a sterling exchange standard and at other times a silver standard.

But it was possible that this might have, in course of time, emerged as a perfected sterling exchange standard[78] in the absence of the Governor's Minutes issued from time to time, putting sterling values upon the rupee. This proved a disturbing factor and was the root cause of the currency tension it gave rise to and the ultimate triumph of the rupee. It enabled the exchange of the rupee into legal tender money at a fixed rate, for the purchase of sterling bills in Ceylon and thus facilitated free importation of rupees into the Island on occasions when the rupee was at a discount in Calcutta against sterling by more than 1½ per cent. In the absence of rupee imports there would have arisen a scarcity of currency in the Island, since rix-dollars then in circulation were limited in quantity having been minted in 1821 and could only be imported from Great Britain on Government account, there being no mint in Ceylon. This would have raised exchanges to the point of profitability of importing British silver coins (upper sterling point of rix-dollars)[79] from Great Britain and these would have flowed into the Island. Actually however, exchanges could not reach this point. For, rupees being valued at par on the basis of the gold price of silver and India being so close to Ceylon, they would flow in much earlier

78 The currency system possibly would have evolved somewhat on these lines. Although the over-valuation of rix-dollars had proved itself an obstacle to the free circulation of British silver, the supply of rix-dollars, which were minted in 1821, was soon bound to become scarce since there was no mint in Ceylon. This would have raised the value of rix-dollars to a point at which it would become profitable to import British silver from Great Britain. And, in course of time, if the supply of rix-dollars were not added to, the proportion of British silver in circulation would have increased until it became the standard coin of the Island. The sale of bills by the Treasury at 1½ per cent premium would have prevented exchanges from falling below that limit and the cost of importing British silver coins into the country would have determined the upper limit of fluctuation of the exchanges. The country thus would have gradually landed herself on a sterling exchange standard.

The working of this process, however, was disturbed by the official valuation of the rupee which by usage or otherwise acquired the force of law.

79 On the basis of a par of exchange of 18*d.* per rix-dollar, the upper sterling point of the rix-dollar would be $(18+x)d.$, where x stands for the expenses per 18*d.* sterling of importing British silver in bulk from Great Britain to Ceylon. Likewise, the upper rupee point of rix-dollars would be $(18+x')d.$—*i.e.*, the point of profitability of importing rupees into Ceylon—where x′ represents the expenses per 9/11 rupee of importing rupees in bulk from India to Ceylon. India being much closer to Ceylon than Great Britain, x′ would be smaller in magnitude than x, rupees would flow into Ceylon earlier than British silver; and the flow of rupees would prevent exchanges from rising to $(18+x)d.$ See footnote 80, p. 232.

than British silver[80] and prevent exchanges from rising above par by a margin higher than the cost of trans-shipping them across the Palk Strait. Thus the rupee, while it took full advantage of the fixed rate for the sale of bills by the Treasury, when this rate benefited Indian commerce, it, at the same time, effectively short-circuited the operation in the reverse direction of the sterling exchange standard by preventing the importation of British silver into Ceylon and offering its own services instead.

The situation already in favour of the rupee was rendered more so by the Minute of 1836 which over-valued it by about 9 per cent. It was instrumental in reclaiming Ceylon into the Indian currency area. Having driven from circulation all the legal tender money[81] (except the subsidiary coins the legal tender of which was limited), the notification by which the Treasury sold sterling for legal tender money, remained a dead letter and Ceylon was now on a silver rupee standard *de facto*. This position remained unaltered with the passage of the Orders in Council of 16th October, 1852[82] and 22nd October, 1856[83] which declared the British and the Australian sovereigns legal tender in Ceylon.[84]

80 "Rupees could be imported" observed the Law on Commission on currency appointed by the Governor of Ceylon on 24th September, 1869, "at about one-third the expense and with far greater facility and convenience than British silver." See *Report*, p. 12.

81 "The (convertible) Government paper and some British copper coins still continued, however, to circulate with the rupee as did a few silver rix-dollars rated at 1*s*. 6*d*." See Chalmers, *op. cit.*, p. 356.

82 Reference may be made to the great discoveries of gold in Australia in 1851, which following as they did on those of California, profoundly affected the currency of the British Colonies in common with the rest of the civilized world. The Order in Council declared the British sovereign legal tender in all the British Colonies and British silver coins legal tender up to 40 shillings. This last provision although it made no specific reference to Regulation 8 of 1825 can be said to have rescinded that part of it which made British silver coins unlimited legal tender.

The Order in Council of 1852 was preceded by a Minute of the Governor of Ceylon, issued under instructions of the Secretary of State, which, had declared the British sovereign legal tender in the Colony on the ground that it was a coin of the Realm. But the legal advisers of the Crown maintained that no coin could be legal tender in a Colony unless so declared by an Order in Council or an Act of a competent local Legislature.

83 Australian sovereigns minted in Sydney were at first legal tender only in Australia and the Eastern Colonies of Ceylon, Mauritius and Hong Kong. Later, as local feeling was strong against their restricted currency, they were placed on an equal footing with the British sovereign, in 1866.

84 Sovereigns never entered into active circulation in Ceylon. British sovereigns, probably, never reached the Island. But Australian ones occasionally

But accounts continued to be kept by the Government and a part of the public[85] in denominations of pounds, shillings and pence. Obligations expressed in these denominations, however, were discharged universally in rupee currency, each rupee being rated 2*s*. "Pounds" and "Shillings" in Ceylon were no more British currency. Connection with the latter of Ceylon money ceased when the Government notification for the sale of sterling bills became inoperative on the disappearance of legal tender currency from circulation. They were merely reminders of the past attempts to make British silver tokens the currency of Ceylon; and a pound (and its subdivisions) were just monetary synonyms for rupees ten (and subdivisions of the rupee).[86] The Ceylon pound was thus a silver pound with fluctuating exchanges[87] with the British pound sterling, with which it was no more connected than silver was with gold.

And yet, in the eye of the law, the status of the rupee was derived from the Governor's Minute of 1836. Although at the time it was believed to possess the force of law and was universally accepted as such, in fact, it was illegal. No coin could be declared legal tender in the Colony by a Minute of the Governor. This could only be done either by an Order in Council or a properly enacted legislation of the local Legislature. A Governor's Minute was neither.[88] It was also in direct violation of specific instructions of the Home Government which had declared itself against the rating of any currency above its intrinsic value.[89]

found their way here. They were, however, treated as merchandise, and were sold at premiums varying from ½ to 10 per cent according to demand for export to India or for turning into ornaments.

85 See footnote 75, p. 230.

86 Copper tokens passed current at the following rates :—

1½*d*. British copper = one *fanam* = 1 *anna*; 1 stuiver = 1 *pice*; 1 *challie* = 1 *pie* (1/12 *anna*).

87 After the publication of the Minute of 1836, for instance, at the market price of silver, £100 of British currency was worth Rs. 1076 or £107 12*s*. of Ceylon currency, *i.e.*, the British pound was over 7½ per cent higher in value than the Ceylon pound.

88 The question of the legality of the Governor's Minute was discussed in detail by the Lawson Commission. See Commission's Report, *op. cit.*, pp. 16-17.

89 In 1832, the Secretary of State had directed the Governor of Ceylon to give currency to coins only at their bullion value. The Minute issued by Sir R. Horton therefore was in defiance of these instructions. It was, however, disapproved by the Home Government and Sir R. Horton was directed to revoke it. But the Governor remonstrated. His remonstrance was adopted by his successor. Eventually, the Home Government, though still disapproving of the policy of the

VI

Official attention, to the question of the legality of the Minute, however, was not drawn until a generation later, when a demand was "made upon the Government by a discharged official, for the payment of a large amount in sovereigns instead of in rupees,[90] the real metallic currency of the Colony."[91] This was made the occasion by the Governor, Sir Hercules Robinson, to submit to the Secretary of State for the Colonies, with the approval of his Executive Council,[92] a Minute dated 11th March, 1866. In the Minute he urged* the adoption of the following measures:—

(1) The Indian rupee (weighing 180 grains of silver $\frac{11}{12}$ths fine) with its subdivisions (namely, $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{5}$ rupee) to be the sole legal tender in Ceylon;[93] all public accounts to be kept in terms of it (but private individuals to be allowed the option of continuing the prevalent practice or of adopting rupee denominations);

Minute, acquiesced, since it considered, that, repeated changes in the currency system were undesirable and harmful. (See Report on the Financial Position and Prospects of Ceylon, cmd. April 1848). The aquiescence of the Home Government, however, did not make the Minute. any the less illegal.

90 It may be recalled that British silver coins, paper and silver rix-dollars, Treasury notes expressed in British currency, and British and Australian sovereigns alone were legal tender, but not the rupee.

91 See Governor's Minute to the Secretary of State, dated 11th March, 1866.

92 The Minute of the Governor submitted to the Secretary of State was approved by the Executive Council on 24th February, 1866.

93 Sir Hercules Robinson was not the first to see the anomaly of the situation and to suggest that the rupee be declared legal tender. Earl Grey's Report, 1847, urged the same reform. Observed the Report: "... as Ceylon is for all commercial purposes a part of India, the simplest and most effectual manner of remedying the present anomalous state of things would be to establish in that Island the Indian in place of the British currency. We would accordingly recommend that the necessary steps should be taken for this purpose." Cmd. April 1848, *op. cit.*

* Referring to the anomaly of the situation Sir Hercules Robinson observed: "I apprehend that debts contracted in terms of British money can only legally be discharged in British or Australian gold coins which are not in circulation. If this view be correct, and it were generally known, much inconvenience might be caused to both the local Government and individuals, by the attempts which might be made to disturb all existing engagement; and it is, therefore, I think, of the utmost importance that measures should be adopted with as little delay as possible, for giving the existing arrangements, which are natural and convenient, the sanction of law." See Minute dated 11th March, 1866, *op. cit.*

(2) All transactions (past, present and future), expressed in pounds, shillings and pence to be declared legally complete if discharged in rupees at the rate of 2*s.* per rupee;

(3) The following enactments to be repealed:—

(a) The Orders in Council of 23rd March, 1825, 16th October, 1852, 22nd October, 1856 and Regulations No. 8 of 1825 and No. 8 of 1827.

After much correspondence on the subject between the Treasury (of the Home Government), the Secretary of State for the Colonies and the Government of Ceylon, these suggestions[94] were embodied in an Order in Council which was passed on 18th June, 1869.[95] It empowered the Governor of Ceylon to enforce its provisions on a date to be fixed by him. Before fixing the date the Governor appointed a Currency Commission on 24th September, 1869 uhder the chairmanship of the Hon'ble Justice George Lawson, "to consider and report, whether, any change will become either necessary or desirable in the denomination of Public Accounts, on the Proclamation of Her Majesty's Order in Council of 18th June, 1869, declaring the rupee to be the only legal tender of payment within the Colony of Ceylon and the Dependencies." The Commission by a majority reported in the affirmative and recommended the denominations of rupees annas and pies as the most suitable.[96] An influential minority of four members, however, was in favour of rupees and its decimal subdivisions;[97] while another minority of

94 The suggestion that public accounts be kept in rupees was not specifically mentioned in the Order in Council. But the repeal of the Order in Council of 1825 which had required the accounts to be maintained in British currency, gave the Government freedom to choose its own denominations for keeping accounts.

95 While the Minute was being considered by the Home Government Sir Hercules Robinson went Home on leave and his presence in Great Britain was taken advantage of by the Treasury and the Secretary of State to discuss the problems with him. On request of the Colonial Office, he submitted a draft Order in Council and a draft Proclamation, in which he embodied all the provisions of the Minute. These were considered and approved by the Treasury who made only a few verbial alterations in them after consulting Sir Hercules Robinson.

96 See Report of the Commission, p. 1.

97 Four members of the Commission supported the decimal system of subsidiary money. In their dissenting Memorandum they pointed out that the British denominations of £. s. d. and the Indian denominations of Rs. as. ps. were supported only by three members each, and that although a larger group in the Commission preferred the decimal system, it was turned down by a combination of the other two groups. See Report of Commission, *loc. cit.*, p. 9.

three members, who were supported by the Colombo Chamber of Commerce,[98] thought that no change was necessary in the system of keeping accounts.[99]

Sir Hercules Robinson, while forwarding the Report of the Commission to the Secretary of State supported its findings for a change in the system of keeping public accounts. But he was in favour of decimal subsidiary coins and was strongly opposed to annas and pies. At first Her Majesty's Treasury declined to approve the decimal system, but Sir Hercules Robinson persisted and it ultimately yielded to him. The Order in Council of 1869 was brought into force, by notification in the Gazette, on 1st January, 1872 and simultaneously with it, decimal fractional money. As from 17th September, 1874 the old Ceylon *fanam* and stuiver (or pice) were demonetised and thus the last link was broken, which connected the modern with the old currency.

With the enforcement of the Order in Council Ceylon combined a binary system (since $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{8}$-rupee coins were legal tender) with a decimal system in respect of coins subordinate to the standard. In 1891 the Indian silver coins of 2 annas were abandoned. In 1892 by a consolidating and amending Order in Council, the rupee of Portuguese India was admitted to unlimited legal tender, equally with the rupee of British India and decimal silver tokens of 10, 25 and 50 cents (of 800 millesimal fineness) were authorised to be struck, to pass current as legal tender up to five rupees; the limit for copper coins was to remain at one half of a rupee. The Indian half-rupee and one-fourth rupee were retained as legal tender, but only as subsidiary coins with a five rupee limit.

VII

The next event of importance was in 1893 when, on the closing of the mint to the public in India[100] (26th June), the Governor of Ceylon appointed the Silver Currency Commission, under the chairmanship of the Hon'ble James Alexander

98 *Ibid.*, p. 12.

99 *Ibid.*

100 The fluctuation of the rupee exchanges with gold currencies was interfering with the flow of commerce, which, combined with the growing sterling obligations of the Government prompted the desirability of a change-over to the gold standard. The closing of the mint to the free coinage of silver was a first step in the direction.

Swettenham, C.M.G., Auditor-General, on the 16th October, 1893, "to enquire into and report as to—

"(1) The probable effect in Ceylon of the recent action of the Indian Government in putting an artificial value on the rupee;[101]

"(2) The measures which it may be expedient to take to protect the interests of the Colony under the altered nature of the currency."

The Commission believed that the working of the silver standard, specially during the quarter-century that preceded the closing of the mint in India, when, owing to the fall in the gold price of silver, rupee exchanges with the gold-standard countries depreciated, had been "for the benefit of the greatest number." In other words, continued the Commission, "the sum of the advantages has preponderated over the sum of disadvantages, and, as far as we can see, the action of the Government of India is not advantageous to the general interests of Ceylon."[102]

With respect to the second question referred to them, the Commission considered three measures: adoption of (1) international bimetallism, (2) a "coin of commerce" and (3) a Ceylon rupee. International bimetallism was a much discussed topic of the time and the Commission, while dismissing it as impracticable, only gave expression to the general opinion on the subject, when they said, that success of the measure depended upon it being acceptable to all nations. This, the Commission considered, was "impossible at the present moment."[103] A "coin of commerce," on the analogy of the Japanese silver yen and the Mexican dollar, they rejected, since the "subject was investigated by a Royal Commission, which had reported in 1868 in favour of the British sovereign or pound sterling."[104]

They discussed in some detail the problem of an independent currency for Ceylon. But, for several reasons[105] they were not

101 With the closing of the mint in India, the face value of the rupee rose above its metallic value and it was ultimately stabilised at 1*s.* 4*d.*

102 *Report of the Silver Currency Commission*, 1893, p. x, para 25.

103 *Ibid.*, p. xiv, para 35.

104 *Ibid.*, p. xiv, para 35.

105 The severance of the connection with the Indian rupee, it was argued, might raise the value of the coin in terms of Ceylon money, which would raise the price of imported foodstuff and the cost of living and might interfere with the flow of Indian labour to the estates.

prepared to "advise the Government of Ceylon to severe its connection with the currency of the Continent of India." They continued: "We think the risks inseparable from such a change are as great as, if not greater than, those which may be expected from inaction at the present time."

The Commission's recommendations were accepted by the Government and no action was taken to disturb the currency system. In 1901, in imitation of the provisions of the India Coinage and Paper Currency Act, 1899, by an Order in Council, (dated September 26) the sovereign was declared legal tender in Ceylon and by Ordinance No. 13 (of 1901) the Paper Currency Ordinance of 1884 was amended so as to permit the Currency Commissioners to issue notes against the tender of gold coins.

That the provision for the convertibility of sovereigns into notes (Section 3 of Ordinance No. 13 of 1901) might prove a source of embarrassment was not perceived at the time either by the Legislature or the Government. It made it cheaper by about 3/16ths per cent[106] to import sovereigns from India (and when exchanges were favourable even from Australia)[107] than rupees, and, within a month of the passing of the Gold Ordinance (as Ordinance No. 13 came to be called) imports of silver ceased.[108] Hitherto silver rupees had flowed into the Island in the course of commerce: when exchanges turned sufficiently in its favour, banks imported them from India and offered them to the Currency Commissioners for notes. Such inflow had sufficed the requirements of internal circulation and there had arisen no necessity for Government to import rupees on their own. But when the banks started importing gold instead of rupees there arose a scarcity of rupee circulation. Nor did the Government attempt to relieve the situation by importing silver, for, since sovereigns were legal tender they converted notes into sovereigns instead of into rupees or partly into the one and partly into the other according to the state of their reserves.[109]

Sovereigns, however, could not take the place of rupees in circulation. The commission on bank drafts being less than the expense of exporting sovereigns, they were not in demand for remittance to India. With a weekly wage of only a fraction of rupees fifteen, the value of sovereigns was too high to serve as

106 *Report of the Ceylon Currency Commission*, p. 23.

107 *Ibid.*, p. 23.

108 *Ibid.*

109 Evidence of George Van Hoff Clerk to the Commissioners of Currency before the Commission. See *Report of the Ceylon Currency Commission*, p. 18.

a medium of exchange for vast masses of the working population. Their not being convertible legally into rupees was another obstacle to their free circulation.

To examine the question of "the existing scarcity of silver in the Colony and of suggesting some way of meeting the present difficulty and of preventing its recurrence," the Governor of Ceylon appointed on 5th November, 1902, the Ceylon Currency Commission with the Hon'ble Mr. A. G. Lascelles, Attorney-General as Chairman.

The Commission considered several alternative remedies[110] to the problem of silver scarcity. Although the scarcity was owing to the Gold Ordinance they were against the demonetisation of the sovereign altogether and the repeal of the Ordinance. The sovereign, in their opinion, had not had a fair trial. They observed that the "witnesses have for the most part evinced a decided reluctance to advocate the demonetisation of the sovereign," although it was "universally admitted" that such a step would force the banks to import silver instead of gold. The Commission, therefore, while retaining the Order in Council of 1901 would so amend Section 3 of the Gold Ordinance as to restrict the issue of notes against gold at the discretion of the Currency Commissioners. This would enable the latter to compel the banks to import silver whenever the situation threatened a scarcity of it in the circulation.

Among the remedies considered by the Commission, the proposal for a Ceylon rupee and the discussion on it is of interest. The Commission observed that it was generally recognised that "the cause of the scarcity of silver in Ceylon is the continual drain of rupees to India by native traders, coolies and others." And it was thought that an independent rupee for Ceylon which would not be legal tender in India, would, since such rupees could not then be exported to India, solve the problem of silver scarcity. The problem of remittances to India could be solved

110 The Interim Report was actuated by the Colonial Secretary's letter to the Chairman of the Commission dated 5th November 1905 in which he observed: "I am to state that His Excellency specially desires the Commissioners to advise whether silver should now be imported by the Government, and if so, whether through the medium of the banks or by direct shipment of gold to India."

The Commission's recommendation to import rupees as an emergency measure, they justified on the ground, that, "in the particular emergency on which we have been desired to advise, the onus rests with the Government, in view of the fact that the present difficulty has arisen owing to the recent gold legislation" See, *Interim Report*, para 6.

by Chettiar and bank drafts, telegraphic transfers and money orders as hitherto, and, sovereigns. The country would then be saved the expense of importing rupees from India and if the Ceylon rupee was not issued on a "commercial basis"[111] but was of the same weight, fineness and value as the Indian rupee, it would yield handsome profits to the Government. Also, if made absolutely convertible into gold, such convertibility not being in force in India,[112] "it would have the effect of popularising both the local rupee and the sovereign, and to some extent would counteract the bias in favour of the Indian rupee caused by the latter's value for remittance purposes."[113]

But the Commission, nevertheless, was not "prepared . . . to recommend the adoption of a local currency." They argued that, in the first place, the situation to examine which they were appointed," demanded a more immediate solution than could possibly be effected by such a radical step as the minting of a Ceylon rupee." Secondly, in the event of Ceylon adopting an independent currency, "the Colony would undertake the sole burden of a liability which at present is borne by India—the liability, namely, to keep up the gold value of the rupee." Thirdly, although the proposal for a Ceylon currency had been supported by "a numerous and influential section of the witnesses, there was a marked divergence regarding the form which such a currency should take" and there was "no clearly formulated scheme" to go by. But all the members of the Commission were "agreed that this question should receive further investigation at the hands of competent authorities from outside the Island."

The Governor of Ceylon while forwarding the Report of the Commission to the Secretary of State supported their main recommendation and observed that he and his Executive Council were "strongly opposed to the demonetisation of the sovereign,[114]

111 When the mints were open to the public and the face value of the coins conformed to their bullion value, the currency was said to be on a "commercial basis."

112 The Government of India was not obliged to convert rupees into sovereigns. Its willingness to do so depended upon the abundance or scarcity of gold in the reserves.

113 *Report of the Ceylon Currency Commission*, p. 12.

114 The sovereign being a unit of comparatively large value, the Governor of Ceylon suggested that the half-sovereign which would suit better the level of income of vast masses of the population, be made legal tender. See, Despatch of the Governor of Ceylon to the Secretary of State for the Colonies dated March 31, 1903.

which would be a retrograde step."[115] He was personally in favour of a Ceylon rupee, but he would defer the question until it was "fully considered by competent authorities" and this he would like to be done "as soon as possible." The Secretary of State, however, felt that the repeal of the Order in Council and the Ordinance would be justifiable, if their operation had proved harmful to the Colony, since it was only for the minor reason of gold occupying less space in the reserves than silver that he had assented to these measures in 1901. But he allowed the Governor of Ceylon the option of accepting the recommendation of the Commission, if he still adhered to his view, after reading the Despatch (of the Secretary of State).

The Governor of Ceylon thereupon reappointed the Currency Commission to examine the Despatch of the Secretary of State. It generally agreed with the view of the Governor and Ordinance No. 13 of 1901 was amended in the manner recommended in the First Report of the Commission.[116]

Since then no major measure of currency reform was attempted. Such of the changes as were effected were minor ones or were devised to meet situations which Ceylon experienced in common with India. For instance, in 1910, the five-cent and one-fourth cent copper pices were withdrawn from circulation and in their place were issued nickel-bronze 5c. coins. In 1917, by Ordinance No. 1 of 1917, notes of the denominations of rupee one and rupees two were issued to replace the silver coin, which, owing to the high price of silver, were melted or exported; and by another Ordinance (No. 33 of 1917), the melting of gold and silver coins was prohibited. In 1920, by Proclamation (August 7, 1920), the sovereign was demonetised.

115 The Secretary of State could not approve the idea of the half-sovereign being made legal tender. For, he explained, that, "this coin was omitted from the Order in Council because there seemed no sufficient reason for throwing upon the British tax-payer the cost of making good wear and tear of the coin." See Despatch of the Secretary of State for the Colonies to the Governor of Ceylon, dated August 11, 1903.

116 The draft amendment as given by the Commission of Section 3 of the Ordinance was as follows :—"For Section 11 of 'The Ceylon Paper Currency Ordinance No. 13 of 1901,' the following section shall be substituted :—The Commissioners shall on the demand of any person, issue currency notes in exchange for the amount thereof in silver rupees of India. The Commissioners may also issue such notes in exchange for the amount thereof in gold coin which is legal tender in the Colony under any Order of His Majesty the King in Council, but the Commissioners may decline to do so whenever it is inexpedient in their judgement to increase the amount of gold coin held as reserve under the Ordinance."

VIII

Before we close this historical survey of the Ceylon rupee we may briefly review the history of paper money in the Island. Prior to the Bank Charter Act of 1844, as in the Mother Country, the commercial banks in the Colonies enjoyed *laissez faire* privileges of note issue. This served as an inducement for opening banks in the Colonies and at the same time proved a source of liquid funds for their economic development. But the Imperial Government, during the 18th century, was firmly opposed to bank notes being declared legal tender or the issue of notes by Colonial Governments.[117]

But with the suspension of specie payments at Home during the turn of the century and the period of monetary instability that followed, the Home Government could not pay the same attention to the currency problems of the Colonies, in particular those recently acquired from the Dutch, namely, Ceylon, British Guiana and the Cape of Good Hope.

Paper money was introduced into Ceylon by the Dutch in 1785[118] and when they left, it was in a bad state of depreciation. These were withdrawn from circulation by the East India Company and in their place were issued in March 1800 Treasury notes, convertible into copper stuivers, in denominations of 100, 50, and 25 rix-dollars. Rix-dollar notes were maintained at a fixed par with the gold *pagoda* and the pound sterling, by the sale of bills on Calcutta and London. But financial difficulties soon led to over-issue, inconvertibility and depreciation which set in, in 1805 and continued up to 1825.[119] In 1825, while reorganising the currency system of the Island, the rix-dollar notes were declared unlimited legal tender by Regulation 8.[120] Two years later paper rix-dollars were withdrawn from circulation, as opportunity offered,[121] and were replaced, under Regulation 8 of 1827, by a new paper currency expressed in sterling.

117 For instance, the Home Government disallowed the Barbados Bill of 1706 and between 1750 and 1773 passed several Acts forbidding unsecured commercial bank notes being declared legal tender.

Also, they put pressure upon the French Government to withdraw their paper money, current in Canada, during the British conquest of the country.

118 For details see p. 217.

119 See p. 219 *et. seq.*

120 See p. 218.

121 When paper rix-dollars were received by the Treasury in payment for sterling bills on London, they were cancelled. See p. 226 and footnote 55, p. 224.

Like paper rix-dollars, sterling Treasury notes were unlimited legal tender and were convertible into bills on London.

Regulations No. 8 of 1825 and No. 8 of 1827 were repealed by the Order in Council dated 18th June, 1869, which declared the rupee sole legal tender in the Island. Meanwhile commercial banks (of which there were two in the country in 1844, namely, the Western Bank of India and the Bank of Ceylon) were free to issue notes subject only to the provisions of Ordinance No. 23 of 1844. This Ordinance imposed a composition duty of 7*s.* for every £100 worth of bank notes of denominations of £2 and above, and laid down a minimum of specie reserves of one-third the note circulation. Banks not possessing a Royal Charter were required to take out annual licences for the privilege of note issue at an additional stamp duty of £20.[122] On January 1, 1856, the Government ceased issuing its own notes in favour of the banks and Ordinance No. 2 of 1861 raised the composition duty to 1 per cent on the average note circulation and restricted the right of issue to banks having a Royal Charter or the authority of a local Ordinance.

On May 3, 1884, the Oriental Banking Corporation (in which were incorporated the Western Bank of India and the Bank of Ceylon) with a note circulation of about Rs. 3·2 millions, closed its doors. This was probably the greatest crash in Ceylon history and perhaps also that of the European banks in the East. Owing to the disturbance to trade and the panic which ensued, under pressure of sister banking institutions and the Chamber of Commerce on 5th May, 1884, "the Governor assumed the responsibility of guaranteeing on behalf of the Ceylon Government the notes of the bankrupt Corporation."[123] Thereupon the Imperial Government gave its approval to a proposal for a

[122] The discussion which followed the resumption of specie payments in Great Britain influenced the policy of the Imperial Government in granting Royal Charters to banks in the Colonies or approving local Acts of incorporation of banks. The Treasury in consultation with the Colonial Office drafted some regulations with regard to this policy which were circularised to the Colonies on May 4, 1840. These laid down that notes should be cashed on demand; no notes should be issued of denominations below £1; that returns of assets and liabilities of issuing banks should be periodically published: and that shareholders of issuing banks should have double liability.

With the passage of Peel's Bank Acts of 1844-45, the Colonial Office added to its banking regulations in 1846. These required the separation of the banking and issuing departments of banks; limited the total note issue to their paid-up capital; and laid down a minimum specie reserve of one-third the note circulation,

[123] See Chalmers, *op. cit.*, p. 36.

Government note issue in Ceylon based on the Mauritius model.[124]

These were embodied in the Ceylon Paper Currency Ordinance (No. 32) of 1884. Under it a Board of three Commissioners of Currency issued currency notes from January 1, 1885. The notes were unlimited legal tender and were convertible into "silver rupees of India" and issuable on demand "in exchange for the amount thereof in silver rupees of India." Simultaneously, the privilege of note issue was withdrawn from the banks.

It requires the Commissioners of Currency to hold a "reserve in silver coin of one-half, at least, of the amount of the currency notes in circulation," but in emergencies they may allow the reserve proportion to fall to one-third, whereupon no further investments in securities would be permissible until the specie exceeded one-half of the circulation. The securities part of the cover against notes may not exceed one-half of the total assets and may comprise of Government of India securities and such securities of the Governments of the Empire as may be approved of by the Secretary of State.

In the main this Ordinance remains in force to-day. But it has been subjected to five amending Ordinances, which, with perhaps the exception of one, were of minor importance. By Ordinance No. 12 of 1886, the Board of Commissioners of Currency were created a corporation under the name and style of "The Ceylon Currency Commissioners." In 1901 (Ordinance No. 13 of 1901) the Commissioners of Currency were authorised to convert sovereigns into notes on demand and to convert notes

124 The Imperial Government had never willingly favoured the issue of notes by Colonial Governments. Under pressure of exceptional circumstances or financial exigencies, however, they tolerated it in the case of some, *e.g.*, British Guiana, Ceylon and the Cape, where Government notes were inherited from the Dutch or Jamaica and Prince Edward Island, where financial difficulties led to Government issue of paper.

The Government paper currency in Mauritius arose out of somewhat curious circumstances. In 1847 a bank failure in the Colony shook the confidence of the mercantile community in the bank note issue, whereupon they successfully induced the Government to substitute bank notes by Government notes. To this *fait accompli* the Home Government could offer no resistence at the time, and being unable to restore the issue of notes to private hands in 1864, they took steps to place the Government issue on a sound footing. In that year it was laid down that the specie reserves against notes should normally be one-half, with an emergency minimum of one-third; and that the securities in the reserves should not exceed one-half of the total assets, of which the Island Debentures were subject to a maximum of one-fourth the note circulation.

into either rupee coins or sovereigns at their discretion. Ordinance No. 10 of 1909 transferred to the reserves the "depreciation fund" created by the Ordinance of 1884 and Ordinance No. 33 of 1914 was concerned with the counterfeiting of notes. Ordinance No. 11 of 1917 authorised the issue of one-rupee and two-rupee notes.

On September 30, 1936, the value of notes in circulation was Rs. 44,334,994 and silver rupees in the reserves amounted to Rs. 14,158,063. Thus the percentage of coin to notes in circulation was 31·93.[125]

IX

There exists today a growing body of opinion in the country in favour of a currency system independent of the Indian rupee, and the Government is now known to be examining the question. An enquiry into the problem of a currency standard for Ceylon may therefore be of some interest.

Ceylon economy, with a great measure of propriety, can be described as a plantation economy. Tea, rubber and coconut plantations are the economic mainstay of the Island. Its prosperity is linked with the prices of these three products in the world market. They are all export crops. Practically the whole output of tea (except for the insignificant quantity retained for home consumption) the entire supply of rubber and nearly 60 per cent of coconut find a market outside Ceylon. They account for over 90 per cent of the total exports from the country, and are exchanged for manufactures, mainly from Great Britain, India and Japan, and textiles, in large part, from the latter two countries, and rice and other foodstuffs, almost wholly from India. Also an overwhelming proportion of capital invested in the Island comes from abroad, mainly from Great Britain and partly from India, and almost the entire labour force in the plantations (especially tea) is Indian. Exchange stability, therefore, is of vital importance to the Island. It follows that an international standard would serve best her interests.

Also, owing to the close and intimate economic ties of the Island with the Empire, its currency system must conform to that of the Empire. About 70 per cent of the total foreign commerce of the Island is with the Empire countries.[126] Her labour and

125 *The Administration Report of the General Treasury for 1936*, p. 5.

126 See *Annual General Report for 1935 on Economic, Social and General Conditions of the Island*, p. 60.

capital come from within the Empire. Relations with the non-Empire countries are mainly on account of commerce, and, although during the post-war period their share in the Island's commerce has increased, and on the aggregate is about 30 per cent of the total trade[127] today, the share of each individual country is insignificant.

That is to say, since the Empire currencies, along with sterling, are today on a gold standard (*de facto*), it will be agreed that the Ceylon currency system must adhere to this standard. This can be done in one or other of the following ways:—

(i) by adopting a direct gold standard;

(ii) by linking the Ceylon currency to a foreign currency or currencies on a direct gold standard;

(iii) by continuing the present system without alteration; and

(iv) by linking the Ceylon currency to the Indian rupee by a somewhat different method than the present one, with a separate standard coin to replace the Indian rupee.

We shall examine the suitability to the special circumstances of the country of each of these four alternative devices of linking her currency to gold. A direct gold standard[128] under which the currency authority would deal directly in gold to maintain the parity of the currency, is not practical finance under the existing conditions. It implies the maintenance of a free gold market with no restrictions, administrative, moral or legal, on the convertibility of notes into gold or the exports of gold. When the countries on the Continent of Europe, during the last quarter of the 19th century, abandoned silver or bimetallism for gold they all assumed the robes of a direct gold standard on the model of Great Britain—they all had a bank rate, a gold coin and an open mint. But being on balance debtor countries they could not like Great Britain use the bank rate with success to maintain the parity of their currencies. The settling of their international accounts often was brought about by foreign loans or by raising temporary credits abroad. These, or the bills in the monetary reserves, were drawn upon to support exchanges and in practice

127 *Ibid.*

128 For a definition of the direct gold standard see "A Classification of Currency Standards" by B. R. Shenoy, *Indian Journal of Economics*, October, 1936.

the currency standard approximated to an exchange standard. During the post-war period, with the exception of two or three leading creditor countries, whatever the provisions of the law, the functioning of the gold standard has amounted to a gold exchange standard.

Being dominantly a debtor country the experience of Ceylon, if she attempted to introduce a direct gold standard, cannot be different. If so, she cannot help adopting an exchange standard. What, then, shall be the currency (or currencies) to which she should link her own? In making the choice, attention must be paid to the manner of distribution of her external obligations, arising out of visible and invisible imports. If a vast proportion of these, for instance, were payable in terms of one particular currency, then, advantages lie in linking the domestic currency to it. For, the maintenance of the monetary reserves of the country in terms of any other currency (which played a lesser part in meeting its foreign obligations) would be unnecessarily to incur the cost of exchange conversion.

In the case of Ceylon, an overwhelming proportion of foreign obligations, payable on account of profits taken out of the country, interest on and repayment of capital, pension, leave allowances, etc., are due in rupees or sterling. It is probable that rupee payments in their aggregate are larger in volume than payments in terms of sterling. Great Britain's share in the total foreign trade of the country is about 35 per cent, while, on account of imports alone India's share is about 40 per cent.[129] Also, the Island's trade balance with Great Britain is heavily in its favour (about 783 lakhs in 1935), while, with India, it is against it (about 695 lakhs in 1935). To the import surplus from India must be added payments due on the importations of capital and labour. Thus, while on trade account there would be an appreciable surplus of sterling export bills payable in Great Britain, which could be drawn upon to meet the Island's sterling obligations, arising out of invisible imports from the country, it would require to find rupee credits (or other means of discharging rupee obligations) to meet not only the invisible imports from India (which, though not as much in value as that of Great Britain, must nevertheless be appreciable) but also to liquidate the adverse trade balance.

If so, it would appear desirable to prefer the link with the rupee than with sterling. Under a sterling exchange standard

129 This percentage includes figures for Burma, which is only appropriate, since Burma is within the Indian currency system although separated from India.

the Island's exchanges with India might fluctuate over a wider range. Today this fluctuation is very slight, it being limited by the expenses of transporting rupee coins across the Palk Strait.[130] But, when the Ceylon currency would be convertible only into sterling (and not into rupees as at present) the discount on Ceylon money against the Indian rupee[131] might be as high as the sum of the magnitudes by which statutory selling-price for sterling in Ceylon is below par and by which the statutory buying, price for sterling is above par in India.[132] If the statutory prices are determined with reference to the cost of transport of gold, (as between Ceylon and Great Britain, in the one case, and, Indian and Great Britain in the other), then the discount so determined will be in proportion to the expenses of transporting gold from Ceylon to Great Britain and from Great Britain to India. Likewise, the Ceylon rupee may go to a premium against the Indian rupee by the same margin, when the Indo-British exchanges depreciate to the lower sterling point of the rupee and simultaneously Ceylon currency has appreciated to the upper sterling point. Thus, to link Ceylon currency to sterling would be unnecessarily to increase the change risk-cost of remittances arising out of the flow of economic traffic between Ceylon and India in preference to the comparatively lesser one, namely, between Ceylon and Great Britain.

But, the continuance of the existing currency arrangement is not without objections. Under it the Indian rupee coin is the ultimate standard of the country, the rupee notes being convertible into it on demand at the Treasury. This domination of a foreign coin is naturally distasteful to the growing nationalist sentiment of the people. Rupees in circulation are a source of revenue to the Indian Treasury at the expense of Ceylon.[133] It

130 Ceylon exchanges with India are probably never worse or better than ¼ per cent either way and for larger transactions the banks charge as low as 1/16 per cent premium or discount as the case may be. See Evidence of Pestonjee Dinshawjee Khan before the Ceylon Currency Commission (Sessional Paper V of 1903).

131 It is presumed that Ceylon money and the Indian rupee will have the same sterling par of exchange.

132 If we presume that the sterling par of Ceylon money and the Indian rupee were both 18*d*. sterling, and the upper sterling point of the Indian rupee to be $(18+x)d$. and the lower sterling point of Ceylon money to be $(18-x')d$., then the maximum possible discount of Ceylon money against the Indian rupee, when both would be on a sterling exchange, standard would be the equivalent of $(x+x')d$.

133 At a market price of 20*d*. per ounce of silver the value of the silver contents of the rupee would be only about 42 cents.

is argued, however, that rupee coins are hardly, if ever, seen in circulation, their place being taken by the Ceylon one-rupee notes,[134] and that the amount in the currency reserves is not appreciable.[135] The revenues transferred to the Indian Treasury are not a permanent loss to the country, since the rupees could be converted at face value into sterling. But these considerations can be of no justification for either retaining the rupee as the standard of value or for depriving the country's Exchequer of the profits of coining it. Rupee coins being only "notes printed on silver," it is somewhat anomalous that convertibility in Ceylon should be from one set of notes into another.

The objection advanced against a direct link with sterling, namely, that it involves a wider range in the fluctuation of the Indo-Ceylonese exchange rates and thus would add to the risk-costs of remittances to India, applies also, *mutatis mutandis*, to the existing currency arrangement: under the present system Ceylon's exchanges with Great Britain have a wider range of fluctuation than when her currency is linked to sterling directly. The lower limit of fluctuation of Ceylon money in terms of sterling is lower than the lower sterling point: it does not correspond to the cost of transporting gold from Ceylon to Great Britain but is lower than the lower sterling point of the Indian rupee by the cost of remitting rupee coins to India from Ceylon. Indo-Ceylonese exchanges, however, remain very close to par. But perhaps this situation is preferable to a direct link with sterling, since economic relations of Ceylon with India are closer and larger in magnitude than those with Great Britain.

But it is possible to amend the existing system in a manner that may satisfactorily meet the criticism advanced against it, while at the same time preserving its advantages. Without

134 The scarcity of rupee coins in the monetary circulation of the country is owing to the Ceylon rupee being at a discount against the Indian rupee. Their numbers will increase if the discount fell and they would become very common if the discount should turn into a premium by at least the expenses of transporting rupee coins from India to Ceylon.

There are no statistics of rupee coins in circulation.

135 The Banking Commission Report observes: "The major item of the retention of Indian rupees is found only in the currency reserve. The size of this at the end of September, 1933, was Rs. 13,852,132 and it formed 32·95 per cent of the total reserve. The maximum profit that the country would hope to make would be only in respect of the coinage of this amount. On the present price of silver this will be about 50 per cent of this figure. If Ceylon had started the minting of rupees, when silver was high, and the bullion and monetary value of the rupee approximated, there would have been not much gain." P. 231, Para 939, of Report, Vol. I.

prejudice to the substance of it, Ceylon can have a standard coin of her own to replace the Indian rupee, which could then be demonetised. A token, like the rupee, the new coin could be minted either in India or in Great Britain and the profits of minting would accrue to the Ceylon Treasury.

The convertibility of Ceylon money into Indian rupee coins must then cease and may be substituted by the sale of drafts on the Reserve Bank of India *at par* (payable in Indian money) and the Reserve Bank of India may be authorised to sell drafts on the Ceylon Currency Authority, also *at par*,[136] convertible on demand into Ceylon money. Such sale of bills will remedy the objection to the present system, namely, that under it Ceylon exchanges with Great Britain fluctuate over a wider range than if her currency were linked directly to sterling. These exchanges then would remain within the limits of fluctuation of the Indian rupee, which are possibly narrower[137] than the distance between the upper and the lower sterling points of the Ceylon rupee, under a direct link with sterling. It is probable that the banks which are today engaged in the business of remittances between India and Ceylon may object to this arrangement since it would almost completely eliminate their margin of profits. But their objection can be met by fixing a minimum for the sale of bills, sufficiently high to prevent individual businessmen from going to the currency authority: they would then have to continue to make use of the services of the banks and the latter would not be deprived of their commission.

This currency arrangement is better suited to the special circumstances of Ceylon than a sterling exchange standard. The exchange risk-cost of remittances to India, under it, would be reduced to nil while in respect of remittances to Great Britain such cost would not be different from a direct link with sterling. Indeed, it may be less. Also, the responsibility of maintaining the sterling value of the currency unit would continue to be that of India. In several respects it would be an improvement upon the existing currency system.

136 In the alternative the currency authority in Ceylon must buy rupee bills *at par* in Colombo.

137 If the buying and the selling rates for sterling against Ceylon money were fixed with reference to the expenses of transporting specie as between London and Colombo, the distance between these two rates would be wider than the corresponding rates in the case of the Indian rupee, since the distance between London and Colombo is greater than that between London and Bombay.

CO-ORDINATION OF THE THEORIES OF INTEREST

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Of all the theories in economics that of interest is perhaps the most important both from theoretical and practical points of view. In theory its importance can be judged from the innumerable explanations of the phenomenon of interest offered to us by all writers from Adam Smith to Keynes. Its practical importance hardly needs mention to-day. Problems of public economics such as international trade, public finance, the control of the trade cycles and economic planning have to depend for their solution on the correct understanding of the nature and behaviour of interest in the modern progressive world. An attempt at the rationalisation of the theories of interest such as has been made in this article, should therefore need no apology.

All the writers on Political Economy from the time of Adam Smith seem to have placed one guiding question before them, namely, What is interest due to? in the light of the answer to which they have developed their own theories of interest. Obviously, of course, this simple question admits of some such answer as that interest is due to the productivity of capital (demand side) or to time-preference (supply side). Sometimes, again, the question seems to have been posed in a slightly different way and it has been asked, What is interest a payment for? And the answers to this question, such as that it is a payment for waiting, for abstinence[1] or for the loan of money, have suggested a series of apparently divergent explanations of the phenomenon of interest.

All the doctrines of interest that spring from an attempt to answer such questions in a direct and categorical manner must of necessity be incomplete. The best approach to the theory of

1 Properly understood waiting and abstinence mean the same thing. It is strange, therefore, that economists should have quarrelled on this point. Marshall prefers the word waiting while Davenport considers the word abstinence to be the better of the two. For him, however, neither waiting nor abstinence is a satisfactory word. But Davenport in his zeal for originality has unnecessarily created confusion here. To wait means, as is shown later in the text, not to consume, and not to consume means to abstain.

interest must be one that starts from the fundamental conception of interest. And linked as it naturally is to that of capital, no explanation of interest should be considered as complete that does not satisfy the logical definition of the term capital. Whether the rate of interest can be zero or negative, or whether productivity is an essential condition for the existence of a positive rate of interest[2] are some of the questions which would be extremely easy to answer (but which have led to much confused thinking) were one to keep before one's mind a clear conception of capital and remember that interest is what such capital earns.

Interest must be defined as the earning of capital; and the earning of capital, like that of any other factor, is determined by its marginal productivity. This simple statement contains answers to two questions: What is interest? and How is its rate determined? The marginal productivity of capital depends on its supply, under given conditions of demand or, what is the same thing, given technique of production. Let us consider a third question. Why is there interest? This is tentamount to asking why is interest a positive quantity greater than zero? The answer of course is that it is a positive quantity greater than zero because marginal productivity is greater than zero, and that is so because the supply of capital is scarce. Scarcity of capital, like that of any other factor is to be understood in the sense of its productivity. It is regarded as a scarce factor of production when it is not possible to reduce its quantity in use without decreasing the amount that it produces in co-operation with other factors.[3] In other words, it is scarce so long as it has some (positive) marginal productivity. It follows from this that the only logically straightforward answer is that interest is due to, or exists because of, the productivity of capital. This statement

[2] There are many who still believe that the rate of interest can be zero or even negative. In 1886 Foxwell in a paper on Some Social Aspects of Banking explained the possibility of a negative rate of interest. Marshall and Fisher also identify themselves with such a view. Even Keynes' explanation of the theory of interest would admit of such a view. It should be noted, however, that interest, being the earning of capital—a factor of production—can never be negative, just as wages can never be negative. What could, however, be negative is the payment from a person who borrows to another who lends. But such a payment is hardly ever pure interest. In another article I intend to discuss this point fully.

[3] In other words, a factor is scarce when its marginal utility (in our example, productivity) is greater than zero. In modern phraseology, we could say that as far as considerations of production go, a factor is not scarce when its elasticity of substitution is zero. Mrs. Robinson and Dr. Hicks were the first to speak of elasticity of substitution.

might seem to lay emphasis on the demand or productivity side of capital neglecting to take account of the forces on the side of supply. However, it does not amount merely to the so-called marginal productivity theory of capital. For, in this notion of marginal productivity is implicit that of the supply of capital. The marginal productivity of capital depends on the amount of capital in use, and the amount in use is determined not only by the considerations of productivity but also by that of the ease with which the supply can be increased. So, behind the fact of marginal productivity the forces of supply and demand play equally important parts.

Coming now to our original proposition, namely, that interest is due to the marginal productivity of capital being greater than zero, we may link it with another on the side of supply and say that interest is due to the scarcity of capital in the sense that it requires some effort to produce it. Had the production or creation of capital required no effort, the use of capital for purposes of production would have been carried to an extent where its marginal productivity had dwindled to zero. Thus we can explain the phenomenon of interest in another way by saying that interest is due to the effort or abstinence that creation of capital requires. This effort or abstinence is, however, due to the fact of waiting, for in economics to create capital means simply to wait—a fact that will be made clear presently.

Hence, the phenomenon of interest can be looked at from three points of view. From one point of view, interest appears as due to and determined by the marginal productivity of capital. From another point of view it appears to be due to and consequently determined by the abstinence or effort that the creation of capital necessitates. While from the third point of view it appears to be a price for waiting. These, as has already been observed, are not three different and antagonistic explanations of the phenomenon of interest and do not form bases of divergent theories of interest.

We can now add to these three a fourth explanation of interest, namely, that interest is the tangible expression of time-preference. This follows directly from one of the above explanations. Waiting involves abstinence only because one does not like to wait, a present enjoyment being always preferred to an equal enjoyment in the future.[4] But the discussion of this

[4] This is a debatable point. Some of the modern economists think that for a perfectly rational man present and future enjoyments are of equal significance (certainty being assumed). Though agreeing in substance with these economists,

point may be put off till we have examined the concept of capital itself.

Before passing on to the discussion of the meaning of capital let us summarise the foregoing explanations of interest. Interest is the price for the use of capital. (It is due to the marginal productivity of capital being greater than zero. This is the user's or borrower's conception of capital.) In the second place, interest is the price of waiting or abstinence. (It is due to the fact that the creation of marginal unit of capital requires effort or abstinence. This is the conception of interest from the creator's or lender's point of view.) In the third place interest is the expression of time-preference. (It is due to the fact that present enjoyment is preferred to an equal enjoyment in the future. This is also the lender's or creator's conception of interest.)

If now interest is at once the price for the use of capital and the price for waiting or the reward of abstinence, it is clear that in a competitive market for capital interest would be settled at the point at which the marginal productivity of capital and the marginal disutility of waiting or marginal abstinence become equal when both are expressed in money or any other common medium of measurement. Consistently with all these explanations of capital we can define interest as we did in the beginning of this article, that is, as the earning of capital. This is a fundamental definition of capital and is applicable alike to cases in which capital is used by the creator himself and those in which it is used by the borrower. The earning of capital is determined (in a competitive system) by the productivity of the last unit of capital in use; the amount of capital in use is determined (under given conditions) by the available supply; the supply available depends on the cost of creating capital, *i.e.*, on the cost of waiting or abstinence; and, finally, the cost of waiting or abstinence is determined by the preference of the present over future enjoyment. In the position of equilibrium, the marginal productivity of capital (on the demand side) equals the marginal cost of waiting or the preference at the margin, of the present over future enjoyment.

It has been felt necessary to analyse the concept of capital because interest has been defined as the (marginal) cost of

I would prefer still to maintain that it is of the essence of human psychology to prefer the present to the future.

Often, of course, a man is found to postpone an enjoyment, preferring to have it in future rather than at once. He does so because he obtains thereby the pleasure that consists in hoping and expecting. But this only goes to support the contention that the ultimate aim is to maximise *present enjoyment*.

creating capital and the creation of capital has been explained as consisting in waiting. Thus interest, from the supply side, has been understood as a compensation for the cost of waiting. The conception of capital is thus linked to that of waiting. It is necessary, therefore, to explain how capital is created by a process of waiting.[5]

Capital is a factor of production and, therefore, it consists of material goods that are used in an act of indirect satisfaction of wants. A commodity that is used in the direct satisfaction of a want is thus not capital. There are two broad uses of every commodity. We can use a thing to satisfy a want directly or to satisfy it indirectly. In the first case, we are said to consume it; in the second, to use it as capital. Thus capital is that which is not directly or immediately consumed. In other words, the use of capital involves the foregoing of immediate consumption. A thing that is capable of being consumed at once thus becomes capital when it is used as a means to some remote satisfaction. Hence, we create capital by undertaking to postpone consumption, *i.e.*, by undertaking to wait. A thing that is by nature capable of being used only as capital is capital by existence and cannot be considered as being created. This is true more or less of all capital goods. They are by nature incapable of being used as commodities of consumption. We can then be said to create capital only when we decide to use as capital what is capable of being used in the direct satisfaction of wants—and when we so decide we are said to make a decision to wait. Creation of capital is thus tantamount to waiting. A thing that is capable of two such alternative uses is the command over consumption goods, general purchasing-power or money. Thus, for purposes of the study of interest, capital means money or any general command over consumption goods. It is, therefore, clear that the only way to create capital is to wait or to abstain from immediate enjoyment. It has already been said that a thing that exists as capital for an individual at any particular time is incapable of rendering direct and immediate satisfaction and, therefore, the income derived from it cannot aptly be called the price of waiting. It is for this reason that modern economists

5 Certain differences between conflicting theories of interest can be traced to the different senses in which the term capital is used. It is of paramount importance, therefore, to define capital as widely as in consistant with the true economic meaning of that term. It seems to me that there is no simpler and better definition of capital than that which identifies it with anything that is saved.

prefer to designate such incomes from all capital goods quasi-rent.

Interest, then, in the modern world is a purely monetary phenomenon. In the absence of money or, what comes to the same thing, in the absence of any commodity that represents a general command over consumption goods, the conception of interest would be linked to labour more appropriately than to any other factor. For, in the absence of money things would by nature be fit either for use as consumption goods or for use as capital goods; and in such cases the only thing that would admit of alternative uses would be labour (all human faculties included). It would, for example, be open to an individual then, to use his labour power for the enjoyment of consumption goods or capital goods.[6] But this is probably beside our point.

At this stage now interest can be defined as the earning of capital and capital as the thing that is not used in the direct satisfaction of wants. Further, interest equals the marginal productivity of capital and the marginal productivity depends on the amount of capital in use. This amount depends on the supply of capital and the supply of capital is directly regulated by the cost of supplying or creating it. Since capital is that which is not directly consumed but which is the result of postponed enjoyment, the cost of capital creation consists in the cost of waiting. Interest then is determined by the amount of capital in use which, on the one hand, is regulated by marginal productivity and, on the other, by the marginal cost of waiting. As marginal productivity diminishes and marginal cost remains constant or increases, with use, it is possible for us to reach a point at which these become equal. So long as this point of equilibrium is not reached interest continues as an unstable income.

These propositions are universally true and their validity does not depend necessarily on lending and borrowing transactions. When a man uses his capital himself or, to express it more correctly, when a man decides to use his resources as capital rather than as consumption goods, he combines in himself, in a sense, the agencies of the lender and the borrower. He is a lender inasmuch as he forgoes temporarily the enjoyment of

[6] Mr. Adarkar should agree with me here, for he says in his book *The Theory of Monetary Policy* that a community can save but only its productive resources.

Armstrong is also of the same view. For he says that in a state of equilibrium there would be no interest, all income being regarded as wages of labour. Probably Armstrong overstates the case.

direct satisfaction and is a borrower inasmuch as he makes use of the capital goods.[7] (As a matter of fact, however, he is only a lender—for he has forgone the enjoyment of direct satisfaction. The borrower should strictly mean the borrower of direct satisfaction. We have such borrowers in the case of loans for consumption purposes.)

Let us now make the conception of time-preference a little more precise. The cost of waiting, the expression that has been repeatedly used above, implies the idea of time-preference. Waiting is a cost item only because it is disagreeable. And it is disagreeable because man is so constituted mentally that he prefers present to future enjoyment of the same magnitude. It is necessary to note carefully that what a man prefers is not necessarily present goods to future goods, but present enjoyment to future enjoyment. A final psychic income of a given intensity or magnitude has greater attractiveness in the present than in a future period.[8] It is the damage that a distant enjoyment suffers through its journey over time, as it were, that is the true cost of waiting. Man's mind may fully well measure the intensity of a distant enjoyment but that measure is invariably discounted and makes a feebler appeal than an equal measure of present or immediate enjoyment. Man prefers, in other words, the nearer to the farther. His preference for one over the other is a mere time-preference and this time-preference makes waiting a disagreeable job—a cost. In an act of saving or waiting, therefore, the future enjoyment in itself must be greater by at least the rate at which the human mind discounts the future. This rate at which future enjoyments are discounted is perhaps constant, though the rate at which commodities are discounted varies with the provision already made for the future. But things (or command over consumption goods) fructify by the process of saving, that is, in more familiar words, capital is

7 Most of the theories of interest are the theories of lending and borrowing of money. When Keynes, for instance, says that interest is the price not of saving but of not hoarding he is clearly but unwisely identifying interest with the earning of only that part of capital which is lent or borrowed. The difficulty cannot be got over by calling the income of capital that is not lent quasi-rent. For, even quasi-rent or rent is interest referred to an object instead of to its value.

8 Professor Fisher does not always make a clear distinction between the preference for present goods and the preference for present enjoyment. He speaks, for instance, of negative preference or impatience saying that when future income is relatively scarce, preference is negative. For a correct theory of interest it is necessary always to understand preference in the sense of preference for enjoyment rather than for goods.

productive; and this productivity diminishes with the increase in the quantity of capital. Hence, as said above, capital creation stops when the marginal productivity equals the marginal cost of waiting—it equals the rate of time-preference.

When it is said that interest is the expression of time-preference[9] it is meant merely to draw one's attention to the most fundamental factor that determines the rate of interest. But it would be an error to imagine that in the real world where exchanges are made not between enjoyments of a given intensity but between money (of unstable value) at one time and money at another, the concept of cost of waiting is synonymous with that of time-preference. For, under a given stage of development of a man's mind, his time-preference is fixed at a certain figure, say, 10 per annum. But had time-preference been the same as the cost of waiting and had it consequently gone to determine the rate of interest, the equilibrium rate of interest would have remained stable at that figure of 10 per cent. The fact, however, is that what a man saves or lends in a tangible shape is money (to take a concretely perceivable case) and what he uses or receives back is also money. The utility of money received, at the time of receiving it, must be greater, by the rate of time-preference, than the utility of the money saved, at the time of saving. But in the world in which reckonings are made in terms of tangible things, the cost of waiting is measured in, say, money and the difference between the money received and the money saved (at the margin) gives us the measure of cost of waiting. For, here, cost of waiting means the cost of waiting to consume money, and not, as the expression time-preference would signify, the cost of waiting to enjoy satisfaction of a given intensity.

In a similar way the productivity of capital is measured in terms of money, and not, as it conceivably should be measured, in terms of satisfaction. If an investment of Rs. 100 yields, after a year, an income of Rs. 110 productivity of capital is reckoned at the figure 10 per cent per annum. In reality, however, the true productivity of capital is given by a comparison of the utility of Rs. 110 with that of Rs. 100. An equilibrium rate of interest of 5 per cent thus, indicates marginal productivity

9 Time-preference plays an important rôle as a determinant of interest in Pigou's *Economics of Stationary States*. He writes, "These two rates (death-rate and birth-rate of capital) are equal when the stock is such that its marginal product, expressed in the manner of Chapter X §6, as a rate of interest, is equal to the rate at which the representative man possessed of representative income — . . . . —discounts future satisfactions."

of capital of 5 per cent in terms of money and the marginal cost of waiting also of 5 per cent reckoned in money again. But a 5 per cent rate of interest does not indicate a time-preference of 5 per cent and it is, therefore, illicit to argue that the rate of interest in the manner in which it is actually reckoned and stated, equals the rate of time-preference. The recognition of this fact does not, however, in any way, minimise the importance of the concept of time-preference or the rôle that it plays in the determination of the rate of interest. The cost of waiting as it is actually measured, is a function of time-preference and the utility of money.

The study of this case points to the difference of the same order as that between nominal and real rates of interest as defined by Professor Fisher though, it may be noted, our exposition does not at all run on precisely the same lines.

It has been shown that interest could be considered as a compensation for the exchange of present enjoyment for future enjoyment. When a consumption good is turned into capital good or when the right to enjoy consumption goods is exchanged for the possession of capital goods, what is really done is to exchange present enjoyment for future enjoyment. In the case of money, the present and future uses take respectively the forms of hoarding money and lending it out. Thus, interest could be viewed as a payment for not hoarding. Keynes for this reason looks upon interest as a payment for foregoing liquidity. The recognition of the part that liquidity-preference plays in the determination of the rate of interest, therefore, does not render our explanation of the phenomenon of interest incomplete. Liquidity-preference does not play its part only in matters of money. Not only can a person hold in liquid form money that is capable of being lent, but he can hold other commodities as well in such a form. Making consumption use of a commodity has the same relation to making a capital use of it as idle cash or liquid money has to investment.

Let us now study Keynes' theory of interest a little more critically.[10] His theory is that the rate of interest is not determined by the supply (and demand) of saving. The amount of money saved by the recipients of income does not all become

10 I am referring here to the symposium on the theory of interest by Keynes, Ohlin and Robertson that has appeared in recent numbers of the *Economic Journal*. Keynes is of the opinion that his theory differs fundamentally from the classical as well as the Swedish theory of interest, while Ohlin, Robertson and others feel that there is no real difference between these theories. As shown in the text this latter view is correct.

available for purposes of lending. Only a part of the money saved is actually offered to borrowers, while the rest remains hoarded. Hence, interest is determined by the supply of money that is not hoarded. It is the price for not hoarding, rather than for not consuming. Since the money that is hoarded is, according to Keynes, meant simply to satisfy liquidity-preference of the holder of money, it follows by direct substitution that the rate of interest is determined by liquidity-preference.

This piece of reasoning is open to attacks from two directions. In the first place, the apparent conflict between Keynes' theory and the classical explanation of the phenomenon of interest arises from an erroneous conception of the nature of saving. As a matter of fact, the amount of money that is hoarded is not, in the true economic sense of the word, saved. Hoarded wealth administers directly to the satisfaction of wants. It constitutes a consumption good, not a capital stock. Saving, on the other hand, involves sacrifice of immediate enjoyment; hoarded wealth involves no such sacrifice—it directly satisfies a want.[11] The price for not hoarding is, therefore, in reality the price for saving. On a wider and more correct view of saving the apparent loophole in the classical doctrine disappears.

The entire amount of money held in liquid state by a person, however, does not constitute his hoard. A part of such money —perhaps a large part—has the express object of satisfying the want of liquidity. This part is, in the proper sense of the word, said to be saved, and yet it might appear it does not go to determine the rate of interest since it does not constitute a part of the supply of saving. Here, it might be supposed, is a real conflict between the classical and Keynes' explanations of interest. The conflict can, however, be traced to the fact that the term rate of interest is capable of two different interpretations. Keynes understands by interest the payment made by the borrower to the lender when they are different persons. If we admit that the borrower and the lender can as well be one and the same person, then, as argued in the earlier part of this article, interest appears

11 A miser is, therefore, not a saver of wealth. He puts aside his income not with a view to using it in the future. His hoard gives him a direct satisfaction immediately. He does not abstain when he hoards. True, there is no such pure and simple miser. But the miser in every man undergoes no abstinence when he hoards wealth. This point is important in the scientific study of the theory of interest. Keynes ignoring this difference between saving and hoarding includes the desire "to satisfy pure miserliness" in the list of factors on which the amount of saving depends. For him not spending and saving are the same thing.

as the earning of capital. The amount of hoarded money that is meant to satisfy the preference of the person for liquidity earns interest as much as the amount that is actually lent. On a wider interpretation of interest, then, the rate of interest appears as a function of the supply and demand of saving.

It should now be clear why Keynes rejects the view that interest is the price of waiting. Since waiting goes with the entire amount saved (not consumed) and since, in his view, only a part of this amount goes to determine the rate of interest, the "price of waiting" cannot be regarded as an adequate description of interest. No further explanation should, however, be necessary to show that when the terms saving and interest are correctly interpreted every part of saving involves waiting and every part of it goes to determine the rate of interest.

Keynes explains the difference between his and classical theory by saying that while the classical doctrine maintains that the rate of interest is determined by the demand and supply of credit his own theory is that it is determined by the demand and supply of money.[12] As a matter of fact the two theories are one and the same.

The demand for money consists in the demand for liquidity while the demand for credit consists in the demand for purchasing-power. The supply of money consists in the acquisition of deferred claim on goods, and likewise supply of credit also consists in the acquisition of such a claim. Speaking in terms of credit, the rate of interest is governed by the amounts offered by lenders and demanded by borrowers (that is, by the quantity of pure capital or money). But the amount that people want to lend depends on how much they want to hold in liquid shape, or rather on how much they do not want to hold in that shape. Similarly, the amount that people want to borrow depends on how much cash (or liquidity) they want to possess.

12 In the symposium referred to above, Robertson comments on this point as follows: "Does it follow that we are debarred from regarding the rate of interest as the price of the use of loanable funds? I do not think so . . . . The fact that the rate of interest measures the marginal convenience of holding idle money need not prevent it from measuring *also* the marginal inconvenience of abstaining from consumption."

Ohlin writes similarly, "The theory I advance does not dispute that the rate of interest equalises the advantages of holding actual cash and a deferred claim on cash . . . . The difference between Mr. Keynes' theory of interest and my own, which is built on the Stockholm theory of saving and investment, lies in the fact that Mr. Keynes gives to the quantity of cash a central place, whereas in my opinion the quantity of claims plays just as fundamental a rôle and provides a direct link with saving, investment and the whole economic process."

Some difficulty arises when credit means or includes (as it of course should) bank loans. For, a bank might create loans without the appropriate money backing—that is, out of nothing, as it were. But this difficulty could be got over by regarding bank loans as money itself. As a matter of fact, we should make a clear distinction between the fact of the *creation* of a loan by a bank and its *grant* to a debtor. As soon as a banker gives credit to a client by creating new money—bank loan—he performs two operations simultaneously. In the first place, he *creates* money and, in the second place, he *lends* it. Since the act of creating money is concurrent with that of allowing credit, it gives rise to the erroneous idea that in such cases the banker creates credit.

We now come to Armstrong's theory. His conceptions of capital, saving and investment are novel and confusing. His theory of interest differs from almost all the well-known theories. His conception of capital is very much the period-of-production conception of the Austrian school. There is no capital so long as the process of production is not being lengthened. Saving is defined as consisting in the sacrifice of earlier for later incomes. (This is the accepted definition of saving to-day.) But there is said to be no saving and no investment when development stops and the method of production (though already round-about) ceases either to become longer or to become shorter still. Accordingly, in a stationary state there is no capital, no saving, no investment and no interest. The crux of the problem is that there is no saving because there is no waiting or abstinence in the act of merely maintaining a round-about method of production. According to the theory we have put forward here, in such a case, there is no *further* saving and therefore no *further* income, because there is no *further* abstinence. This should remind one of Davenport's similar views on waiting. For him too, abstaining from eating up capital is no abstinence. What is the waiting involved, he asks in using Nature's waterfalls for productive purposes?

If the material means of production used in creating income be not capital because the process of production is not being further lengthened what are they? And what is the income from them to be called? Armstrong has only a partly satisfactory answer to give. While explaining this point he writes, "He is much more likely to regard the whole of his income as the product of his labour and will be quite unconscious of any compulsion to treat part of his income as being paid by one part of himself to another part for the service of refraining from

reverting to a less productive method of utilizing his labour." But there is a difference between what a man may feel conscious of and what economic analysis may reveal to a student of the subject. When the labourer owns his own capital and when the stationary state is reached there certainly arises no necessity for him to separate the share of capital from his own earning of labour. Nevertheless, it would be possible to find out by the marginal productivity analysis the share of capital. Armstrong looks at the process of production and the ultimate receipt of income from the point of view of the human factor—the labourer. The traditional theory, taking the dynamic character of economy for granted, looks upon the process of production and its productivity from the point of view of the human factor labour as also from that of the lifeless factor capital. And since capital is owned by human beings there is no absurdity in such a point of view.

SOME FALLACIES IN PROFESSOR PIGOU'S CLASSIFICATION OF PUBLIC EXPENDITURE

BY

K. J. MATHEW THARAKAN.

Prof. Pigou's classification of Governmental expenditure into Exhaustive and Transfer has been admitted by eminent economists to be of great value inasmuch as it indicates a qualitative difference between expenditures which are verbally the same. A close examination of the merits of this distinction will, however, reveal that the importance to theory of this classification is much less than what Prof. Pigou estimates it to be, while its practical importance is next to nil. In this article we shall consider the former part.

The basis of Pigou's classification.

Prof. Pigou's classification is so well-known that it is probably needless to quote him at length in this connection. Nevertheless the trend of his reasoning may be briefly set forth as follows:—

Expenditure can be divided into Transfer Expenditure and Exhaustive Expenditure. In the case of the former there is no reduction or actual using up of the national resources, whereas in the case of the latter there is an actual using up or reduction of national resources. In the case of transfer expenditure what happens is only a transference of purchasing-power from the government representing the community to some individual or individuals within the community itself. Hence the national wealth or income remains unchanged. Further—and this is most significant—*the way* in which the individuals to whom the purchasing-power is transferred by the government utilise the purchasing-power is *immaterial* from the point of view of its effect on National wealth. "It may be used to set people to make capital goods, whereas apart from the transfer, it would have been used to make consumable goods and vice versa; or to set them to make necessaries for the poor instead of luxuries for the rich or vice versa." In other words, whatever be the commodities for the production of which the purchasing-power

is utilised, the sum-total of national wealth resulting therefrom will remain the same.

It would, therefore, appear that there is a gulf of difference between governmental extravagance on exhaustive and transfer items. For governmental expenditure on the transfer side does not result in a wastage of national resources, but at the worst, results only in a change in the quantity and variety of the commodities produced, which, however injurious to certain sections of the community, does not result in any reduction of national wealth. On the exhaustive side, it would appear if we have correctly grasped the trend of Prof. Pigou's reasoning, that governmental extravagance implies a more or less *equivalent* waste or reduction of national resources.

Fallacies Concerning Transfer Expenditure.

However illuminating this analysis appears to be, we are afraid, it has failed to take note of certain important considerations. If transfer expenditure, at its worst, results only in a change, as by the creation of more luxuries than necessaries, or more capital goods than consumable goods, then indeed, Prof. Pigou's argument that these are secondary matters may be conceded. But this in fact is not the case. *Increased and unexpected or undeserved purchasing-power in the hands of individuals need not lead to the creation of various forms of wealth.* A man might utilise the purchasing-power transferred to him by the government, in an attempt to convert his waste lands into arable lands by sinking a number of wells, and after all, come to grief, being unable to find water. There can be many instances of purchasing-power in the hands of individuals being turned to unproductive enterprises, thereby diminishing national wealth.

Secondly, it does not always follow, that an individual getting an increased purchasing-power from the government should necessarily increase his demand for various commodities. It will not be an exaggeration to say, that increased wages coming like windfalls, may tempt many workers, especially in countries like India, to indulge in complete or partial idleness, instead of in increased consumption. To take another instance, if the result of an undeserved grant of a pension of £1,000 to a medical practitioner, who is normally earning £1,000 by private practice, is to make him retire from his private practice, the governmental action results in the surrender by the community of the services of the private practitioner, without any corresponding gain, and, to the extent to which the community has to

go without these services, there has been a real reduction of national wealth. It is quite conceivable that the medical practitioner, instead of retiring completely from his practice, might limit it to a few important clients. Or, he may continue as before, but induce his wife, who works as a teacher, to resign her job, now that he is well off, or he may do both. In any case, there will be a diminution of national resources. How is it possible then to maintain, as Prof. Pigou does, that extravagance in transfer expenditure does not result in any diminution of national resources?

Prof. Pigou's conception of transfer expenditure must, therefore, be subjected to important qualifications. The way in which transfer expenditure is utilised is not a matter of secondary importance. Whether extravagant transfer expenditure results in a reduction of national resources and wealth, would depend on two considerations:—

(a) Whether it has been utilised by the individuals to whom the transference has been made for unproductive or productive purposes.

(b) Whether the transfer expenditure has resulted directly or indirectly in any diminution of labour which would otherwise have been available for the community.

Fallacies Concerning Exhaustive Expenditure.

Granting the above qualifications, it would at first sight appear that Prof. Pigou's classification is still of great value. For we are likely to think after reading Prof. Pigou's analysis that governmental extravagance on the exhaustive side represents an *equivalent* waste or diminution of national wealth, whereas extravagance in transfer expenditure can normally never result in an equivalent diminution of national wealth, since at any time, it is inconceivable that *all* purchasing-power would be utilised either for unproductive purposes, or for the withdrawal of services which are otherwise rendered.

A closer examination of what exactly is meant by "Exhaustive Expenditure," will, however, reveal that extravagance in exhaustive expenditure cannot normally involve an *equivalent* amount of waste. For according to Prof. Pigou's conception, "the term 'exhaustive' in no way implies waste, or suggests that the community would be better off, if the expenditure were not made. For example, the expenditure in building

a highly remunerative government electricity plant is exhaustive expenditure. It can, therefore, be considered, that if the government invests, say, £50,000 in an electricity plant, which is remunerative enough, then it is justifiable exhaustive expenditure, whereas, if it invests the same £50,000 in an electricity plant, which is not sufficiently remunerative, then it is to be considered an extravagance in exhaustive expenditure, since it is an expenditure, which the government ought not to have incurred. It does not follow, however, that the extravagant exhaustive expenditure of £50,000 represents an *equivalent* real loss of £50,000 to the community. For the electric plant does bring *some* return, though not in proportion to the expenditure incurred. The real loss, is then only equal to the capitalised value of the difference in returns between the two types of electric plants. Similarly, if the government constructs twentyfive battleships, when only twenty would have been enough at a cost of £10,000 each, then it is no doubt right to accuse the government of an extravagance in exhaustive expenditure to the extent of the cost of five battleships, *i.e.*, to the extent of £50,000. But it will not be correct to say that the sum of £50,000 spent for constructing the five extra battleships has been *completely* wasted. For, the construction of the five extra battleships, does add, to the sense of security felt by the community, and to that extent confers an extra satisfaction, though this extra satisfaction may not be equal to the sacrifice incurred in parting with £50,000. The *real loss*, it is clear, is only equal to the difference between the two.

Misleading Comparisons.

It is, however, true, that Prof. Pigou's remarks taken along with the examples quoted by him leaves the impression on the mind of the reader, that extravagance on the 'exhaustive' side results in an *equivalent* wastage of national resources. This is, because, Prof. Pigou, in his anxiety to prove what cannot be proved, has gone to the extent of instituting comparisons which are highly misleading and devoid of any usefulness. It is a well-understood principle that when comparisons are made between two classes, the examples chosen should be fairly representative of each class. It is no use, for instance, to compare the income of a petty medical practitioner in a countryside with that of the Advocate-General, and then on the basis of this false analogy, drawing general conclusions concerning the comparative incomes enjoyed by doctors as a class and lawyers as a class. Prof. Pigou, however, seems to find this

method of comparison very convenient. He says, " for example, the alleged extravagance of paying £400 a year to members of Parliament, of paying exorbitant wages to work people, of taking troops to some place at a heavy cost, and then taking them back to the place from where they came, or making immense quantities of a certain kind of shell, which is afterwards found to be useless—all these are supposed to be similar in effect. This is incorrect. To make wastes of shells of a kind which we do not want, involves a real using up of capital and labour; to transport troops from Egypt to the Dardanelles and then to transport them back again because ships were not properly packed also does this. But to pay a man whether a member of Parliament, or a contractor, or a workman, much more than his services are worth, that undesirable though it is, does not directly involve any using up of national resources." Note that the two instances of exhaustive expenditure referred to, are items of expenditure which result in *complete wastage* of the money spent, whereas in the case of the transfer expenditure referred to, Prof. Pigou himself admits that the sums paid were not *wholly* undeserved; only the payments were much more than the services were worth.

If Prof. Pigou had chosen such examples as the construction of twentyfive battleships when twenty would have been enough, or the construction of three new forts when two would have been enough, or the investment of £50,000 in an electric plant which was not remunerative enough, we would have agreed that he was giving representative examples. And in such cases, we have clearly shown that the net or real loss is very much less than the extent of extravagant expenditure.

Conclusion.

Extravagant expenditure on exhaustive items cannot be said to be fraught with more dangerous consequences than extravagant expenditure on transfer items. In spite of the fine distinction sought to be made, the two items of expenditure remain essentially the same. If there are instances of the government committing such monstrous errors of judgment as the making of large numbers of shells which are afterwards found to be thoroughly useless, there can be an equally good number of instances of individuals making use of the transferred purchasing-power in completely wasteful enterprises as turning a locality upside-down in a vain search for gold or silver-mines. If the common errors of judgment on exhaustive items result in a

partial reduction of national wealth, it is quite possible to conceive that to more or less the same extent, increased and unjustifiable transfer expenditure results in a diminution of national wealth due to the withdrawal of human effort. In what respects then, are the two items of expenditure fundamentally different?

ECONOMIC ASPECTS OF SUGARCANE CULTIVATION IN NORTH BENGAL

BY

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Present Position of Sugar Industry in India.

Phenomenal expansion of cane-sugar industry in India, within recent years, needs no proof. It has grown to be one of the foremost industries today. Besides affecting the financiers and the cultivators it also influences the Government and the Railway revenue. Indian-produced sugar is sufficient to meet the home requirements. The danger of excess production over her normal home consumption is already beginning to appear.

Foreign markets, other than those of Burma, have been closed to our sugar. In addition to the restrictions imposed by the foreign countries themselves against the import of our sugar, the Sugar Conference held in London last year, decided that India should participate in cutting down her export. This conference, in spite of wholesale opposition from our commercial bodies, has restricted our sugar export for the next five years. A meeting of the International Sugar Council, held in London towards the end of April 1938, has reshuffled the quotas of various countries but without any advantage to our sugar. It is, thus, not hard to see that the industry is passing through a critical stage. These circumstances must lead to a keener competition, invariably with a tendency for a decreased sale price and a lesser margin of profits. It is true that the Sugar Syndicate, as recently organized, will help; but when the supply exceeds the demand, the smaller enterprises will be hard up just the same. It seems, therefore, an appropriate time when all efforts must be made to cheapen the cost of sugar production.

Basic Factors of Sugar Cost.

There are, in general, three main factors, namely, (1) manufacturing, (2) utilization of bye-products, and (3) raw material—cane cultivation—on which the cost of sugar depends. Each of

these factors will be discussed at its proper place. It is sufficient to mention here, that development in any or all of these basic factors should, usually, reduce the sugar cost; *vice versa*, inefficiency will raise the cost of sugar.[1]

Milling and Manufacturing Efficiency in India.

The milling and manufacturing efficiency of most Indian sugar mills has, on the whole, increased considerably within recent years. It is true that our crushing and recovery figures are still lower than those of Java and Hawaii Islands, yet the gap is much narrower than what it used to be. It is to the credit of the Indian technologists that their recovery as well as the quality, in quite a few cases, has been equal and/or better than that achieved by the foreign experts of the pioneer sugar-producing countries. In due course of time, as the Indian staff and labour gain more experience and practice or fully adjust themselves to the modern machinery, our manufacturing efficiency must correspondingly rise. Such has also been the history of the industrial development in other countries. Even as it is, the extraction and manufacturing competence of the Indian sugar mills, when compared with the more advanced countries, does not fall much below 2·3 per cent.

It must be stated, that in many respects, the sugar industry is experiencing, at least abroad, the most rapid and radical changes that have taken place in many years. These changes are, in fact, so rapid that it is hard to realize the extent to which these will affect previous concepts of agricultural and milling practices and all the previous ideas of control in both branches. These are reserved for later articles. It must be mentioned, however, that all these changes tend to lower the cost of sugar production. We will have to introduce these changes in our mills to meet the foreign competition before the protective duty is over.

Utilization of the Sugar Industry Bye-Products.

The three main bye-products of the cane-sugar industry are: molasses, bagasse and press mud. Unfortunately these products are not adequately exploited in India.

[1] It has been assumed that the freight charges vary from the production to the consumption centres. The question, mainly, being an individual and a local one, its consideration has been left out from this discussion.

A. *Molasses.*—This product does not bring in much return at present. Plans are underway to use molasses in the production of motor spirit, alcohol (possibly denatured), acetic acid and similar distillation products. The use of molasses in road works and in the preparation of silage is also being keenly considered. There have been, hithertofore, both political and practical difficulties in the use of molasses. It is anticipated that molasses will have a wider use in the near future. The Sugar Sub-Committee, consisting of technical and business men, has gone into this question, whose recommendations are keenly awaited, before the projects are undertaken.

The use of molasses as manure for agricultural crops, at least for some soils and under certain conditions, has been recommended, based on the field and laboratory experiments of Dr. Dhar and his co-workers. Unfortunately, there is much conflicting evidence, equally experimental and impressive, brought forth both in India and abroad, that its use must be eliminated for the present. The writer's own observations in the experimental fields, in this respect, have shown the inadvisability of its recommendation.

B. *Bagasse.*—It is left over after the juice is fully extracted from the cane. It consists of hard cellulose, pentosans and other ingredients. At present, it chiefly replaces coal or wood in an Indian mill.

Bagasse can be reduced to pulp, whereby it can be utilized in the manufacturing of artificial silk, celutax and ordinary card-boards. These possibilities have been explored abroad. Some industrialists in India, too, have plans for the production of cardboards.

It was once thought that bagasse could be turned into organic manure by fermenting it in composites. This idea is held by some even now. Repeated experiments have shown that the possibility is not a practical one. Even when a satisfactory method of its decomposition is found, its utility this way will be less profitable than that when used in the manufacture of artificial silk or cardboards.

C. *Press Mud.*[2]—No wider use of press mud is made in India thus far. Factories having their own plantations use press mud as a manure, with or without other fertilizers. It has some

[2] Press mud is a bye-product recovered after the filtration and clearance of the juice. It consists of lime, sulphur or carbon black depending on the nature of clarification process involved, salts, some nitrogen, escaped sugar and molasses and other inert non-recoverable solids.

manuring value, but used fresh it kills the present and succeeding crops for two to three years. If it is allowed to decompose by weathering for a number of years its corrosive action is softened. It is 25 times bulkier than ammonium sulphate and ten to twelve times than farmyard manure for a unit of nitrogen. Thus its hauling cost, except where the returned trip of the cane supplying wagons carries this material to the fields, is correspondingly great.

The mud, when turned into dried bricks, can supplement fuel in the boiling house. It is surprising that no attention has been given by the sugar mills in this regard. It contains approximately 11—13 per cent sulphur and 5—7 per cent other flameable material, making a total of about 20 per cent highly calorific heating material. The left-over burnt lime can be used in some minor works, if necessary, with the addition of other ingredients. It has been suggested that an inferior substitute for cement, road-surface material and clay for pottery works are possibilities.

In fairness to the Indian sugar industry, however, it must be said that other countries are not far advanced with reference to these bye-products to the extent that these can materially decrease the cost of sugar production. Their lower cost, is mainly if not entirely, due to their low cultivation cost, be it by higher cane yield or sucrose or both.

Cane Cultivation Efficiency in India.

Our chief cause for higher cost of sugar production, with a few exceptions, is due to inefficiency in our sugarcane cultivation. This may be because of the incompetent management of farms, unsuitable or less fertile lands from the point of view of cane growth, defective combination, quantity, quality or both, of a suitable fertilizer for cane yield and/or sugar, less regard for factors like ploughing, tilling (depth and range), weeding and irrigation (extent and frequency), unsatisfactory control of insects and fungus diseases, and/or want of the introduction of accepted scientific practices or the application of energy-saving methods of modern farming. Defect in one or all the above-mentioned causes may result in a smaller cane yield or sugar loss or both, which consequently should raise the cost of sugar manufacturing per unit. The agricultural losses may range from 25—30 per cent due to less yield and 3—6 per cent due to sucrose. These losses are 12—18 per cent higher than those which could possibly occur due to manufacturing inefficiencies. The percentages

produced here have been calculated from the practical field results taken over a period of five years.

While calculating the agricultural incompetency, the writer has disregarded, to a greater measure, the consideration of such changes that are taking place in Hawaii. It is felt, that at the present stage of our cane agriculture, immediate use of the less difficult and more tried scientific practices, yielding maximum returns, is more desirable. As these are adopted and assimilated in our system, the radical changes can be gradually introduced, since the wholesale changes will enhance the factory complications beyond their efficient control. For instance, the juice of some new varieties, though very rich in sugar, is very hard to clarify. There the cane is harvested without cutting the tops; yet topping in India is considered a most essential step in cane harvesting. The cane, there, is cut and loaded in one operation by means of 'grab loader.' These practices, when introduced in our farming, will reduce the cost of sugar, but mill capacity, house control and other milling complications will react beyond the means of our mills to adequately overcome the new problems.

Of the factors concerned in farming, the selection of a suitable, fertile and compact land is paramount, at the same time, a difficult one. While other factors may vary, being of a temporary nature from season to season, the land is a permanent one. Then, too, the land improvements are laborious and costly, hence cannot be undertaken at all times. Yet quite a number of our cane lands have been acquired without any expert advice, naturally, with discouraging results. The writer knows of a cane farm near Sone East Bank, E.I.R., owned by a well-known Company, where the land is hopeless both for fertility and cane adaptation. Such farms must always remain a failure, since no application of scientific knowledge can save them from loss, and finally, from ruin.

Critical cane field surveys undertaken by the writer, though limited, strongly suggest, that there is much need for a thorough search of suitable areas as well as of the knowledge of the best result-yielding practices. The writer was directly concerned with the management of three plantations, scattered from the Western United Provinces to the Northern Bengal. He also made close observations of twenty well-known cane farms in these tracts. These studies have been supplemented with those attempted in similar capacities in Hawaii and Cuba. With this background, the writer attempted to analyse the prospective *cane areas* of Northern India with particular reference to North Bengal. This article is the outcome of these studies.

AGRICULTURAL CONDITIONS OF NORTH BENGAL

I. Land

A. Permanent Land Settlement and Rent.

There are some neglected areas in North Bengal, which may here be classified as 'waste jungle lands.' The presence of such tracts seems to be due to the adverse effects of permanent settlement on colonization. The highly malarial climate of these districts has also some influence. The landlords, usually, do not cultivate or even manage their lands themselves, but only pay occasional visits. The work is entrusted to their staff. This practice is contrary to that prevalent in the Punjab. Such conditions of Bengal cannot lead to land development. Compact blocks of the so-called waste lands can be acquired on permanent lease at an annual rent of Re. 1 to Rs. 2-8-0 per acre. The jungle on the land can be cut and burnt at about Rs. 5 per acre. Investment on *nazarana* and jungle clearance, comparatively speaking, is indeed, rather very small.

B. Soil Features of New Lands.

Waste lands, lying fallow from years, when cleared, are rich in fertility and organic matter. A number of 100—1500 acre blocks are available. Compactness in land is desired, since it allows closer and easier supervision of the farming operations and requires a fewer hands to manage. Consequently the cultivation charges remain low.

C. Classification of North Bengal Land.

These lands, on the basis of topography, may be divided into high and low. The latter predominate and rice and jute are chiefly grown in them. The undeveloped areas have both kind of lands, mostly high, which can be well drained, of course, with some cost and labour.

Sugarcane cultivation is desired in high lands, although it can be grown in low lands also. The writer was able to secure a good crop even in the so-called 'flood zone.' Some growers have also successfully grown their cane in low lands when planted so early that it can be manured and earthed long before the beginning of the first rains. This period usually comes in the beginning of March in Bengal as the monsoon rains begin in June.

The low lands of North Bengal correspond to similar lands of Java, where cane is rotated with rice and both the crops do

very well. This practice is inevitable because of the Javan existing laws to vacate land to the natives; yet with the personal supervision of the qualified staff the yields and sugar contents are very high. Unfortunately, in India, little significance has been attached to cane farming by private interests. Unless, we too, pay more importance to the scientific aspects of fields, just as much as we do for mills, we shall never hope to cheapen the cost of sugar on a wider scale.

D. Soil Properties.

Physical properties of a soil, in general, are important for all classes of farming including that of cane. With a view to judge the desirability of North Bengal soils for cane production, in this regard, thirty duplicate tests of representative soils in Dinajpur, Malda, Rajshahi, Bogra, and Rangpur districts were made. Clay or clay-loam structures predominated and these are favoured in cane production.

No systematic quantitative tests for the chemical composition of these soils were undertaken. Occasional field tests for certain chemicals were only made. However, the data already collected in this respect by others, were carefully reviewed, which were further supplemented by the so-called 'botanical tests of natural vegetation and field crops.' It was concluded that the soils are generally fertile, rich in organic matter, nitrogen and phosphates, although somewhat deficient in potash. These are well adapted to green manuring crops, which can be rotated with cane.

Most of these soils are not acidic, hence fit for cane growing.

II. Weather

A. Rainfall and Irrigation Requirements.

It rains heavily in North Bengal, where, in normal years, it extends from May to October. Cane also develops during the same period. Since these soils have a good capacity of moisture retention due to their physical structure and the presence of higher organic matter, usually, the necessity of irrigation is reduced to an absolute minimum. In local farming, irrigation is mostly eliminated.

Humidity, as expected, is generally high during the rainy season. Consequently, both transpiration from the leaves and evaporation from the soil must remain slow.

In spite of these advantages, an urge for protective irrigation arises in dry or late monsoon years. In large-scale farming, even if the crop does not fail because of the drought, the crop yield must be high, even if one has to resort to irrigation. Feeling this necessity, the writer had sunk five tube-wells of 25,000 to 35,000 gallons per hour capacity, in addition to eight heads on streams for water-lifting in Rajshahi and Dinajpur districts, in his capacity as the Chief Agricultural Superintendent of the Cane Plantations. These pioneer projects were undertaken with a view to obtain sure high yields.

Protective irrigation in North Bengal, even as a safety and not a necessity, is cheaper than in U.P. and in Bihar. Whereas in Bengal about 3 waterings are enough, in Bihar and U.P. six or even more may be essential. As such, irrigation costs, on the average, approximately 40 per cent less in Bengal than in those provinces.

B. Temperature.

The temperature of these territories, during summer and spring, is warm, and thereby well-suited for cane growth and development. The winters are frost-free. The writer examined the Government of India meteorological data for the last 15 years statistically. The temperature was correlated with cane germination, growth and frost injury. The technical aspects and methods will appear from the Cambridge University in continuation of the writer's previous experimental studies.[3] It would suffice to mention here, that in these tracts, frost injury, even to young tender cane seedlings, does not take place. It means that sugarcane can be planted in early winter without any danger of frost injury or mortality of the young tender seedlings. It must be brought out that early sown cane is economical, because it develops a deeper root system and thereby can withstand desiccation better, can make full use of fertilizers and resists insect and disease attack to a certain degree. Early plantation also helps to evenly distribute large-scale planting, harvesting and other field operations over a fairly long period; thereby minimising the

3 *Jour. Agricul. Science*, Cambridge. 22 : 485, 1932.
Jour. Genetics, Cambridge. 23 : 157, 1930.
Annals of Botany, Oxford. 45 : 594. 1931; 46 : 11, 1932.
Jour. Indian Botanical Soc. 9 : 218, 1930; 10 : 293, 1931; 11 : 327, 1932.
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Protoplasma, Berlin. 12 : 1, 1931; 13 : 374, 1931.
Jour. Biochemistry, Tokyo. 12 : 311, 1930; 13 : 473, 1931.

rush, even with a fewer supervising hands. It yields better crop as well as the ratoon.

III. Labour

The bulk of the local rural population, except Santhals, are not very healthy. They are less hardy and non-enterprising. No wonder, then, that they have allowed such valuable lands to run waste. The Santhals, on the other hand, though hardy, have primitive habits with a mob psychological code of a peculiar order of their own. They are, as a rule, indifferent to disciplinary labour rules, and require much tact, experience and liberalism to handle them. When once their confidence is gained, they work sincerely and conscientiously. The local population is satisfied, at least with their present standard of living and requirements, with rice and fish, which can be obtained with the least effort in these areas.

Labour is thus, for the most part, imported. The Santhals, both local and outsiders, are employed and retained for work, with some efforts and influence of course, at Rs. 8 to Rs. 10 per month. Since recent years, petty contractors from U.P. and Bihar have been attracted. Santhals also come to work in these plantations each year.

IV. Animals

Bullocks of North Bengal are weak; yet these animals, as a class, are better fitted to endure summer heat and less costly to feed, although they don't work well during rains. Buffaloes are more suitable for rainy weather. However they are slow, sluggish, more expensive to feed and are susceptible to heat. When employed in weeding or in interculture work in the young cane crop, the seedlings are broken and trampled. Thus, on the whole, bullocks are more suitable in India than any other animal.

The problem of strong animals can be solved either by crossing with the imported animals or by constantly importing the animals from the outside provinces and their sanitation backed by nutritious ration. Some interested landlords have done this with encouraging results. The writer imported 20 pairs of Hissar bulls, even at the risk of ignoring the expert advice of the Livestock Expert, Imperial Council of Agricultural Research as well of the Director of Veterinary Department, Bengal. These animals have admirably upkept their body-weights, health, and higher working capacities for 2 years, the period until the writer

left these plantations. It is hard, yet, to predict their future. These bullocks, thus far, have proved to be 62 per cent cheaper than the local ones, when considered on the basis of cost per unit of farm work. Mules were also tried, but were proved to be uneconomical and a failure.

In spite of the increasing usage of the tractors and other farm machinery, animal power is indispensable on an average plantation in India, and perhaps will remain so until we become a highly industrialised nation. Even with the well-tried, locally adopted, easily handled and improved implements, the number of farm animals can be reduced for a unit of area.

V. General Cane Growth

Natural requirements of cane growth and sucrose development, such as soil fertility, moisture content, temperature, sunny days, less prevalence of diseases being favourable, the crop does well.

In North Bengal, generally, the winds follow the rains. Such rough weather is favourable for lodging.[4] By this time the cane has attained much weight and the soil is so soft that it cannot resist the falling of the cane against winds. Lodging can be successfully avoided, even on a large-scale farming by heavily earthing the cane base at the appropriate time and by tying the cane tops before such winds are expected. On the plantations, under the writer's charge, lodging was prevented even where the cane yields approached 1200 to 1300 mds. per acre. There is even less chance of lodging when trench system[5] is practised. This is a sure method to minimise loss in this respect.

VI. Roads

Roads, well maintained and sufficient, are necessary for the speedy and economic carting of local cane. Unfortunately,

4 Lodging is a condition when the cane falls or bends towards the soil instead of standing in the erect position, which is natural to it. This change is accompanied by the inversion of sucrose sugar to a non-recoverable glucose sugar. This means a low sugar recovery per unit cane weight.

5 This method requires the digging of a straight ditch approximately 12 to 15 inches deep and 12 to 15 inches wide like a trench. This can be done either by manual labour or by machine power. The cane pieces are planted at the centre of the trench and slightly covered with loose soil. After the plants are weeded, manured and irrigated, the trench is refilled in due course. The cane base up to 12—15 inches, depending upon the depth of the trench, is covered, which gives support to the growing cane. Thus it is not hard to see that the method helps to keep the cane in erect position.

Bengal has very few roads. Even those which exist are badly in need of attention. Most country roads remain muddy and unserviceable during the rainy weather. The writer cannot recall any worse roads than these in any other province of India. Fortunately, for the sugar industry the cane is required to be hauled, mostly in the dry season, when the roads are comparatively better.

The difficulties on account of roads are being well recognized by the mills, the District and the Local Boards and the Provincial Government. The rural reconstruction programmes, which are being given their due importance, may further enhance the straightening of rural road problems. A plea has also been made to devote a part of the funds, received from the Government of India, in the road improvement programme. This fund is a certain percentage from the excise revenue collected from the mills themselves.

Some plantations have and the others are ready to put up narrow gauge railway lines, whereby both the self-plantation and the local cane may be hauled to the mills at a cheaper and a speedier rate. The cane will reach fresher with possibilities of a greater percentage of sugar recovery.

VII. Local Capital and Enterprise

The landlords, on the whole, are in debt. Their land rents, as everywhere else, are in arrear. Even those landlords who can afford to reclaim or colonize lands and can run the farms, are afraid of the risk and the hard life which this calling requires. This is too much for their easy-going nature. Service is hankered after, here as elsewhere, probably in an intensified manner. There has grown some tendency for cane farming, as a few youngmen who have gone into this calling have been benefited by the economic gains received.

VIII. Scope of Sugarcane Plantation and the Relative Facts

Majority of sugarcane plantations, like most large sugar mills in Bengal, are owned and managed by *Marwari* capital. Once occupied, the territory is used for their own ends. The plantations would have been multiplied, but for want of more sugar mills. The surveys undertaken and the local inquiries made fully stress that there is a scope for at least 30 commercial plantations in North Bengal. These plantations should be enough

to grow cane sufficient to feed ten more sugar mills, if and when opened. In fact, two new sugar factories are extremely necessary to cope with the present left-over sugarcane or cane which the cultivators can grow, but don't grow because there is no mill to crush it. This article should emphasize that there is a necessity for profitably exploiting the agricultural resources of 30 plantations in 10 new sugar mills which should be opened.

It has already been stated that a unit of sugarcane as well as sugar is produced cheaper in Bengal than in the United Provinces and Bihar. There is also market for Bengal sugar, and that too, not far from the centres of production. Bengal consumes approximately 1,30,000 tons of sugar annually. She has to import about 85 per cent of her sugar requirements from other provinces or from abroad. Can imported sugar, whether from other provinces or from abroad, compete with that manufactured within her own borders?

Bengal sugar, on the whole, has to travel less from the production to the consuming centres. It has a unique facility of water transportation, which can be supplemented, wholly or partially, to that of railway or cart. The freight charges, obviously, should be less. Molasses, which at present have no or very little value in sugar mills of West Bihar, U.P. and the Punjab, bring in reasonable returns to Bengal mills on account of its cheaper freight to reach Calcutta docks, from which it is shipped to Europe. One cannot be certain of the position of Bengal in the future competition when molasses will be utilized in the manufacturing of the new products like motor spirit, alcohol and acetic acid. Machinery and other stores are purchased from or imported through Calcutta, which on the average, falls nearer than to mills situated in U.P. and Western Bihar. Needless to say that these mills also eventually depend on Calcutta or on Bombay for their machinery and stores. "Sugarcane Act," which has been in force in Bihar and U.P. from a number of years brings in many disadvantages to factories, at least, it is not liked by mill management. Bengal, on the other hand, is free from the application of any such act thus far.

With the advancement of Bengal, her own manufactured products, like sugar, may have a sentimental preference in most communities.

IX. Cost of Sugarcane Production

The following statements show the cost of sugarcane production, including hauling up to the factory gate or the factory

weighbridge, in modern and semi-modern plantations of North Bengal. These are practical costs, compiled from the plantations' accounts which had been maintained as well as from the accounts of the sample plots kept for each typical field of known area and performance. All the costs shown here refer to Coimbatore 213 variety of cane on acre or on maund basis.

A. *Cost of an acre of cane cultivation and carting by country methods.*

(Newly planted crop)

Expenses	Rs.	as.	p.
1. Ploughings 8 @ Rs. 1/2/- each ...	9	0	0
2. Rolling, planking (to break clods) and pulverizing soil 4 @ -/14/- each ...	4	8	0
3. Cost of 38 mds. seed @ -/4/- a md. ...	9	8	0
4. Seed cutting, sorting and planting ...	6	8	0
5. Weedings 2 @ Rs. 3/- each ...	6	0	0
6. Harvesting, stripping & bundling @ Rs. 3/- per 100 mds. for 450 mds.	13	8	0
7. Carting of 450 mds. @ -/-/6 a md. ...	14	1	0
8. Land Rent	3	0	0
	66	1	0
Income			
450 mds. of cane, sale price -/4/- per md.	112	8	0
Profit per acre	46	7	0
Cost price per md. of cane ...	0	2	3½

(First Ratoon Crop)

Expenses			
1. Breaking ridges, weeding and re-earthing	7	0	0
2. Country manuring	3	0	0
3. Harvesting and stripping @ Rs. 3/- per 100 mds. for 300 mds.	9	0	0
4. Cartage @ -/-/6 per md. for 300 mds.	9	6	0
5. Rent of land	3	0	0
6. Miscellaneous	1	0	0
	32	6	0
Income			
Sale price of 300 mds. @ -/14/- a md.	75	0	0
Profit per acre	42	10	0
Cost price per md. of cane ...	0	1	9

B. *Cost of an acre of cane produced on North Bengal Farm with modern agricultural Machinery.*

(New crop)

Expenses	Rs.	as.	p.
1. Ploughings 3 @ Rs. 2/4/- each ...	6	12	0
2. Harrowings 2 @ -/12/- each ...	1	8	0
3. Pulverizings 3 @ -/10/- each ...	1	14	0
4. Furrowing with tractor ...	3	0	0
5. Cost of 50 mds. of seed @ -/4/- per md.	12	8	0
6. Planting and covering seed ...	5	0	0
7. Interculture and weeding ...	4	8	0
8. Manuring and earthing ...	2	0	0
9. Cost of chemical manure ...	18	0	0
10. Hauling, harvesting and bundling of cane for 800 mds. @ Rs. 3/- per 100 mds.	24	0	0
11. Carting to factory or Ry. Station 800 mds. of cane @ -/-/6 per md. (distance within 5 miles) ...	25	0	0
12. Supervision charges (these proportionately decrease with increase of area up to 15,000 acres in compact blocks)	5	0	0
13. Land rent	3	0	0
14. Interest on investment and depreciation of machinery	1	8	0
	113	10	0
Income			
Sale price of 800 mds. of cane @ -/4/- per md.	200	0	0
Profit per acre	86	10	0
Cost price per md. of cane produced ...	0	2	4½

(First ratoon crop)

Expenses	Rs.	as.	p.
1. Gap filling and weeding	7	0	0
2. Manuring & earthing	3	0	0
3. Cost of chemical manure ...	22	0	0
4. Irrigation	3	0	0
5. Harvesting & stripping for 400 mds. @ Rs. 3/- per 100 mds. ...	12	0	0
6. Hauling for 400 mds. @ -/-/6 per md.	12	8	0
7. Supervision charges	3	0	0
8. Land Rent	3	0	0
9. Interest and depreciation ...	1	8	0
	66	0	0
Income			
1. Sale of 400 mds. of cane @ -/4/- a md.	100	0	0
2. Profit per acre	34	0	0
3. Cost price of cane per md. ...	0	2	7½

It will be seen from the above statements how much scope lies for sugarcane plantation of North Bengal.

Advantages and Handicaps to Sugar Plantations of North Bengal.

A. Advantages:

1. Availability of large, compact and fertile lands suitable for sugarcane cultivation at cheap tenancy rights, and at reduced annual rent.
2. The presence of favourable factors of cane growth and its sucrose content.
3. Comparatively less cane pests and diseases.
4. Less need for irrigation, and that too for protective measures.
5. Availability of cheap bamboo for farm fencing and huts.
6. Possibility of jute growth in rotation, acting a cash crop and fertility builder by root nodules.
7. Large scope for competitive marketing of sugar within Bengal.
8. Recovery of molasses prices, thereby well disposal of a bye-product.
9. Lower cost of sugarcane production (also of sugar manufacturing), thus greater returns on investment.
10. Encouragement by the administration to cane cultivation as a substitute cash crop for jute, whose area is being restricted.

B. Handicaps:

1. Malarial climate.
2. Inefficiency and less working capacity of local labour.
3. Weak animal power.
4. Lack of enough sugar mills to consume the anticipated production of cane. The mills and the plantations need to be established almost at the same time.

5. Lack of sufficient roads. These are bound to develope in due course of time.

In item 2 coolies can be imported. In item 3 the bullocks imported from the Punjab do well. Local breeding on a large scale should be encouraged and free stud bulls from the Punjab should be supplied by the local administration.

Conclusion.

It must be concluded from the data, facts, and other observations presented in the body of this paper as well as from the perusal of sugar industrial development of the other provinces of India, that due attention has not been paid to the exploitation of the natural advantages which North Bengal offers to the development of sugar industry. There are fewer factories and cane plantations in this area; while it could easily afford many more. The factories, in India, have not been evenly distributed with foresight, from the viewpoint of the maximum utility of the Indian agricultural resources. In certain areas there are too many sugar factories, thereby unnecessarily inviting competition; while in North Bengal, there are too few of them, although there is an ample scope for more.

POPULATION SURVEY[1] OF SIXTEEN VILLAGES IN SOUTHERN BENGAL

BY

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SATYA SWAROOP,

AND

J. K. BHATTACHARYA.

Information regarding the demography of rural population in this country is admittedly incomplete, inaccurate and therefore unreliable and any contribution to our knowledge on this subject, however small it may be, is therefore desirable. In the course of our investigations on the epidemiology of cholera we had an opportunity of collecting some data regarding the constitution, habits and movements of population of sixteen villages in Diamond Harbour Sub-Division of the 24-Perganas. The data were obtained by house-to-house survey for a period of three years or more by trained workers who were resident in the locality. Some of the facts presented in this paper may be found to be of general interest and may serve, at a later date, as useful record for purposes of comparison.

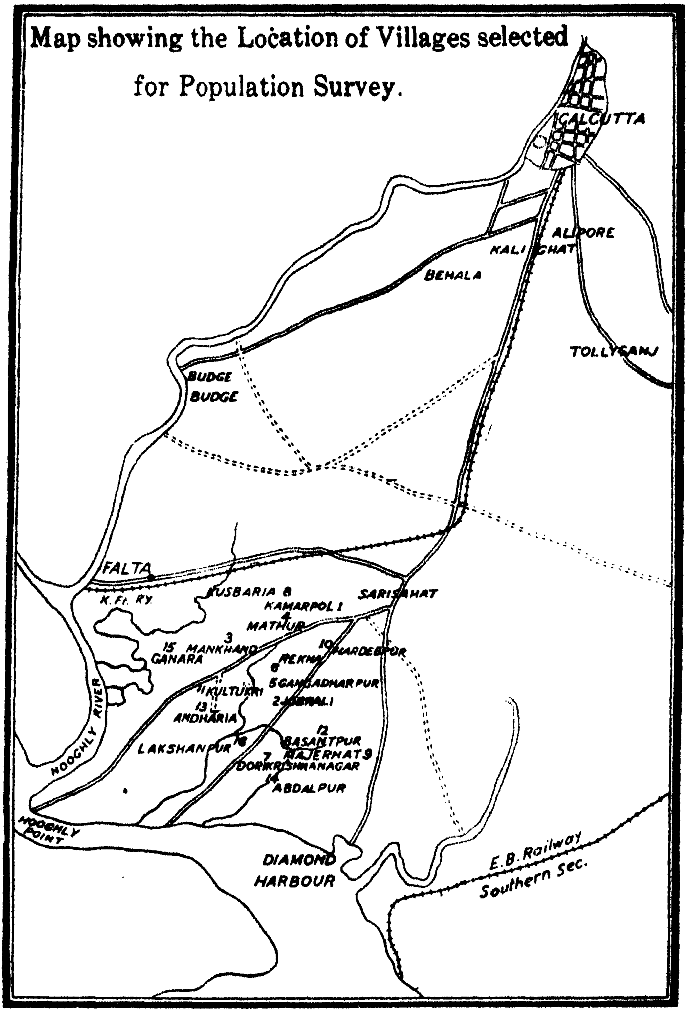
Description of the Area.

In selecting this area a number of factors were taken into consideration which were of special significance in connexion with the main objects of the inquiry. For our present purposes it may be stated that it represented a typical rural area of Southern Bengal which though easily approachable from Calcutta by a macadamised road and a railway was sufficiently isolated because of the nature of the occupation of the people, namely, agriculture.

The exact location of the selected villages is shown in the map. Calcutta-Diamond Harbour Road passes within one mile of Kamarpole which is the largest village in this group. A metalled and an unmetalled road leading from the main road serve most of the villages. The nearest railway station is Diamond Harbour which is at a distance of about 5 miles by

[1] Financed by the Indian Research Fund Association.

road. Since the villages lie on the western side of the Diamond Harbour Road, they do not form part of the pilgrim route to *Sagar Mela* and remain unaffected by this annual large-scale



Map showing the Location of Villages selected for Population Survey.

movement of population. The villages lie in the rich alluvial delta of the Hooghly and close to the river. The country is protected from the spill of the river by means of an embankment and is drained by a number of tidal channels.

The villages, specially the bigger ones, consist of more or less detached *paras* each peopled by a separate community. The huts occupied by single families are usually situated round a central open space. As a rule they belong to the descendants of a common ancestor. Large number of tanks and *dobas* with a

belt of fruit trees and bamboo thickets surround the huts. In some villages there are a number of brick houses belonging to comparatively well-to-do persons such as zemindars, traders or professional men. The more prosperous amongst the *ryot* possess two or three huts all enclosed by a low mud wall or a bamboo fence. These fulfil their requirements for residence, kitchen, cowshed, granary or *gola.* The word hut, it may be mentioned, does not necessarily imply poverty or squalor, and is simply used in contradistinction to a brick-built house. The walls are made of well-puddled clay with or without a bamboo framework. The roofs are usually thatched, *san* grass or leaves of wild palms being used for the purpose. The huts are well supplied with doors and windows. Sometimes the roofs are tiled, and in recent years the use of sheets of corrugated iron for roofing is becoming popular.

The dwellings of the poorer classes differ considerably from the comfortable homesteads described above. Their habitations are built of clay or sometimes only of brushwood, plastered with clay. They are thatched occasionally with hay, but more commonly with paddy straw, and are congregated in a dense mass of shrubs and bamboos. These huts have no apertures or windows of any kind beyond the doorway, the only ventilation being through the small space left between the thatch and the top of the wall. The interior is kept clean and tidy by daily wash with a mixture of cow-dung and clay. While domestic cleanliness is fairly well attended to, village sanitation is wholly ignored and the general sanitary principles which should govern a communal life under modern conditions are but little known or understood. Drinking water is obtained from tanks or ponds not specially reserved for the purpose and from tidal rivers or creeks, which are occasionally contaminated by dead bodies and other undesirable organic matter. Tube-wells are few and far between.

Collection of Data.

We aimed at collecting certain information of epidemiological interest for each and every person in the community in order (a) to obtain a general view of the main characteristics of the population and (b) to have a record of each person for special study in case he subsequently proved to be of particular epidemiological interest.

In order to ensure collection of these data on standard lines, by different observers, in a form, easy of analysis and of checking and recording, a standard schedule was designed. (*Vide* appendices I and II.) Besides providing certain items for identi-

fication of the individual, it includes items regarding his age, sex, religion, caste, occupation, economic status, a general description of health conditions specially with reference to intestinal complaints and other information of epidemiological interest. A special feature of the schedule is that it provides against each item all the alternative categories into which the expected information may fall. Classification is thus made at the time of collection of data. This schedule would at first sight appear to be rather formidable in size but in actual practice it takes very little time to fill up because of its arrangement and for the reason that the investigator knows exactly what to ask and how to enter and classify the results of his enquiries and also because he has very little to write in long hand. He has merely to put a circle round the number representing the particular information applicable in each case. Each schedule was edited by a supervising medical officer who took immediate steps to complete or verify any information which appeared to be lacking or contradictory. Five per cent of all the schedules were verified by him by actually re-examining the persons concerned. This procedure not only ensured prompt correction of the data but also enabled him to keep a constant supervision over the workers and to eliminate personal bias of different investigators.

About ten per cent of the schedules were re-edited by the headquarters staff before the data were transferred on the punch cards. Powers-Samas system of double punching and sorting was employed.

Each village was given a serial number from 1 to 16. The houses, families and tanks in each village were then numbered. For purposes of classification into families and houses the following definitions were employed:

A family means a unit comprising of persons living and messing together and includes resident dependants and servants. A house is taken to mean an aggregation of one or more family abodes, occupied by families related to one another and living together.

Information regarding individuals was obtained by house-to-house visit in the general case schedules on which serial numbers were previously printed, so as to avoid confusion.

The Study of The Population Distribution.

The data now presented relate to the period July 1934 to September 1934.

In table I is presented the combined data of each village distributed according to sex.

Table I. Population of the selected villages distributed according to sex.

Village No.	Name of the Village	Total population	Males	Females	Males per 100 population
I.	Kamarpole	2,695	1,372	1,323	51
II.	Jobrail	673	352	321	52
III.	Mankhand	1,001	496	505	50
IV.	Mathur	970	486	484	50
V.	Gangadharpur	146	75	71	51
VI.	Rekha	200	106	94	53
VII.	Dori-Krishnagar	247	128	119	52
VIII.	Kushberia	299	145	154	48
IX.	Majerhat	518	245	273	47
X.	Haridevpur	468	232	236	50
XI.	Kultikari	259	129	130	50
XII.	Basantapur	456	221	235	48
XIII.	Andharia	296	163	133	55
XIV.	Abdalpur	1,663	812	851	49
XV.	Goanara	184	84	100	46
XVI.	Lakshmanpur	143	75	68	52
	Combined data	10,218	5,121	5,097	50

It will be noticed that the total population varies greatly from village to village. While there are 2,695 persons in the largest village the smallest one has only 143 souls. However the large villages are split up into *Paras* comprising of aggregations of small units which, for all practical purposes, are independent.

Our combined data give a sex ratio of 50:50 while for the whole province the ratio of males to females is 52:48. We shall return to this point later.

Religion.

Hindus and Mohammedans are the only two communities inhabiting these villages. The Hindus predominate. In fact in nine villages there are no Mohammedans at all and in another there is only one. The Muslims form 17 per cent of the total population in these villages as against 54 per cent in Bengal. The provincial rate for Muslims increases to 56 per cent if only the Hindu and Muslim communities are considered. Details for individual villages are given in table below;

Table II. Population of the villages classified according to religious communities.

Village No.	Name of Village	Religious communities Hindus	Mohammedans	Percentages Hindus	Mohammedans
I.	Kamarpole	1,931	764	71·65	28·35
II.	Jobrail	673	...	100·00	...
III.	Mankhand	1,001	...	100·00	...
IV.	Mathur	969	1	99·00	00·10
V.	Gangadharpur	146	...	100·00	...
VI.	Rekha	200	...	100·00	...
VII.	Dori-krishnagar	69	178	27·94	72·06
VIII.	Kushberia	299	...	100·00	...
IX.	Majerhat	518	...	100·00	...
X.	Haridebpur	221	247	47·22	52·78
XI.	Kultikari	259	...	100·00	...
XII.	Basantapur	112	344	24·56	75·44
XIII.	Andharia	296	...	100·00	...
XIV.	Abdalpur	1,477	186	88·82	11·18
XV.	Goanara	167	17	90·76	9·24
XVI.	Lakshmanpur	143	...	100·00	...
	Combined data	8,481	1,737	83·00	17·00

Age.

Comparative statement of the age distribution in experimental villages and in Bengal[2] (Census 1931, Vol. V) is given in table III.

Table III. Age distribution per 10,000 persons in experimental villages and in Bengal.

Age	0—	1—	3—	5—	15—	25—	35—	45—	55—	65 above.	Total.
Experimental Area.	320	472	722	2482	1785	1448	1170	818	493	290	10,000
Bengal	333	585	635	2519	1973	1681	1096	655	339	184	10,000

This table shows that there are more aged people in these villages than in the province as a whole. Except for the age-group 3 to 5 years which shows an excess over the corresponding provincial figure, the figures in the age-groups up to 35 years are lower in the experimental villages. They are consistently higher than the corresponding provincial figures above this age-group. In age-groups 45 and over this excess amounts to 36 per cent.

[2] In this and all subsequent tables the distribution for Bengal has been worked out on the total figures of the two communities Hindus and Mohammedans only.

Age and sex distribution of the two communities is separately presented in table IV.

Table IV. Age, sex and religious distribution per 10,000 persons of the population of the experimental villages.

Community	Age 0-1	1-3	3-5	5-15	15-25	25-35	35-45	45-55	55-65	65+	Total
Males											
Hindu (a)	129	208	265	1121	663	590	497	345	222	93	4,133
Mohammedan (b)	38	38	51	209	159	106	100	93	43	17	847
Females											
Hindu (a)	140	192	336	958	818	620	458	317	181	153	4,173
Mohammedan (b)	23	34	67	194	145	132	115	63	47	27	847
Sum-total (a)	269	400	601	2079	1,481	1210	955	662	403	246	8,306
Sum-total (b)	51	72	121	403	304	238	215	156	90	44	1,694
Total combined for both communities	320	472	722	2,482	1,785	1,448	1,170	818	493	290	10,000

For purposes of comparison age and sex distribution of the Hindu and the Mohammedan population reduced to 10,000 in each case for the experimental villages and for the whole province are set out in tables V and VI.

Table V. Comparison of the age and sex distribution of Hindus in experimental villages rows (a) *and in Bengal rows* (b).

Community	Age 0-1	1-3	3-5	5-15	15-25	25-35	35-45	45-55	55-65	65+	Total
Males											
Hindu (a)	156	251	319	1,349	798	710	598	416	253	112	4,976
(b)	156	252	287	1,234	975	955	679	401	196	104	5,239
Females											
(a)	168	231	404	1,153	985	747	552	382	218	184	5,024
(b)	157	268	282	1,085	1,003	814	519	334	192	107	4,761
Sum-total (a)	324	482	723	2,502	1,783	1,457	1,150	798	485	296	10,000
Sum-total (b)	313	520	569	2,319	1,978	1,769	1,198	735	388	211	10,000

Table VI. Comparison of the age and sex distribution of Mohammedans in experimental villages rows (a) *and in Bengal rows* (b).

Community		Age 0-1	1-3	3-5	5-15	15-25	25-35	35-45	45-55	55-65	65+	Total
Males												
Mohammedan	(a)	168	225	318	1,257	936	624	591	549	254	98	5,000
	(b)	174	307	344	1,413	911	861	573	330	163	90	5,166
Females												
	(a)	139	202	393	1,145	855	781	676	370	277	162	5,000
	(b)	174	329	346	1,268	1,059	751	440	260	137	70	4,834
Sum-total	(a)	307	427	711	2,382	1,791	1,405	1,267	919	531	260	10,000
Sum-total	(b)	348	636	690	2,681	1,970	1,612	1,013	590	300	160	10,000

These analyses bring out the following points:

1. In both communities the male/female ratio is nearly 50:50 in experimental villages though amongst the Hindu females slightly outnumber the males. In the province as a whole the males are definitely in excess of the females particularly amongst the Hindus.

2. In Bengal the numerical superiority of the males both amongst the Hindus and the Mohammedans is most marked in higher age-groups beyond 25 years but in both communities in age-groups 15—25 the females outnumber males. This result may be due to overestimating the age of adolescent females because in the age-group 5—15 they are fewer in number than the males.

In the experimental villages these irregularities are less noticeable both amongst the Hindus and the Mohammedans.

3. We have already observed that in the experimental area higher age-groups preponderate as compared with the provincial figure. This applies to both sexes and to both communities.

Table VII. Mean ages of the two communities by sexes in the experimental villages and in Bengal. Rows (a) *and rows* (b) *relate to experimental villages and Bengal respectively.*

Communities.		Males.	Females.	Both sexes combined.
Hindu	(a)	23·31	22·73	23·02
	(b)	23·61	22·77	23·21
Mohammedan	(a)	24·08	24·05	24·06
	(b)	21·58	20·44	21·02
				22·00
Combined for both communities.				23·20

Combined mean age for both communities and both sexes is 22·00 and is slightly lower than the corresponding provincial figures; result which might not have been expected from an inspection of the previous tables.

Marital Status.

Tables VIII and IX present, for the two communities separately, comparisons of the marital conditions obtaining in the experimental villages and in Bengal. The tables cannot be strictly compared because the age-groups from age 15 onwards differ in the two cases. Amongst the Hindus there are no married or widowed in the first five years whereas amongst the Mohammedans there is 1 married male and 1 female in this group. In Bengal experience there is a larger number of entries in the married groups of both communities.

Table X. Distribution according to marital status at different ages in the two communities in the experimental villages (a) *and in Bengal* (b).

	Age.	0-		5		15 and over	
Community Sex.		M	F	M	F	M	F
Hindus, Unmarried	(a)	1,000	1,000	990	748	184	7
	(b)	984	972	932	602	203	18
Married	(a)	0	0	10	251	783	685
	(b)	16	26	67	382	680	516
Widowed	(a)	0	0	0	1	33	308
	(b)	0	2	1	16	117	466
Total	(a)	1,000	1,000	1,000	1,000	1,000	1,000
	(b)	1,000	1,000	1,000	1,000	1,000	1,000
Mohammedans Unmarried.	(a)	992	992	986	621	142	4
	(b)	978	937	874	547	141	13
Married	(a)	8	8	14	379	826	678
	(b)	22	62	124	444	794	579
Widowed	(a)	0	0	0	0	32	318
	(a)	0	1	2	9	65	408
Total	(a)	1,000	1,000	1,000	1,000	1,000	1,000
	(b)	1,000	1,000	1,000	1,000	1,000	1,000

The data contained in the above table suggest that compared to the province as a whole marriage is delayed in the experimental area. Other points in this connection are discussed below.

Table XI.

The following table shows broad comparison when the age is suppressed:

Community	Place	Married per cent	Unmarried per cent	Widowed per cent
Hindus	Experimental area	46·8	42·8	10·4
„	Bengal	40·8	42·3	16·9
Mohammedans	Experimental area	51·0	38·1	10·9
„	Bengal	48·0	38·4	13·6

The Mohammedans have a definitely higher percentage of married people in both areas (*vide* table XI). In both communities the experimental area has a higher percentage of married people than the province as a whole, but the difference is almost wholly accounted for by a smaller number of widowed because the percentage of the unmarried is practically the same in the two areas.

Caste of Hindus.

In table XII is shown the distribution of the Hindus by castes.

Table XII. Distribution of the Hindus by caste.

Caste	No. of persons	Percentage.
Brahmin	189	2·23
Vaidya	...	...
Kayastha	301	3·55
Goala	315	3·71
Mahisya	5311	62·62
Bagdi	158	1·86
Bauri	11	0·13
Chamar	...	...
Dhobi	171	2·02
Dom	...	...
Kaohara	300	3·54
Muchi	115	1·36
Namasudra	44	0·52
Pundra Kshatriya	988	11·65
Others	578	6·82

Mahisyas form bulk of the population. The *Vaidyas* are conspicuous by their absence. The scheduled castes are represented by only 7·4 per cent of the population and it is said that their number is fast declining. Of the lower professional castes very few follow their ancestral professions.

Occupation.

The distribution of population in occupational groups is given in table XIII.

Table XIII.

Distribution of the total population by occupation.

Occupations	Total Number.	Percentage of the total population
Landlord	14	0·14
Agent to landlord etc. ...	199	1·95
Cultivators	1382	13·53
Shopkeepers	186	1·82
Food Handler	37	0·36
Menial servant	528	5·17
Milkman	1	0·01
Artisan	145	1·42
Medical	34	0·38
Student, Clerk	1431	14·00
Washerman	8	0·08
Sweeper	...	...
Housewife cooking	2584	25·28
Housewife cooking occasionally	469	4·59
Housewife not cooking ...	58	0·57
Beggar	14	0·14
Trader	105	1·03
At home (stays)	3015	29·50
Carter, transport of goods ...	...	...
Not known	8	0·08

The classification in the above table departs from the one usually adopted because it was designed to answer a special purpose in connexion with the cholera inquiry. Most of the classes given in the table are self-explanatory. 'At home'

includes children—boys and girls—not admitted in school and older people who being incapacitated or otherwise not working, stay at home. The percentage of such persons is very high. Making allowance for children up to the age of 5 years and old men above 55 (women are included in the group housewife) it leaves a balance of 15·5 per cent.

It would be interesting to investigate the circumstances under which such a large portion of the population is not at work. Of a total of 3,015 persons, 1,487 are children of pre-school age, *i.e.*, 0—5 years, 64 are men and 181 women above 55 years and 766 are girls between the ages 5 and 15 years who on account of the special social conditions may not be expected to go to school. We are thus left with a balance of 517 or 5·06 per cent of the total population who would be expected to go to work but are not doing so. Indifferent health and illness either acute or chronic account only for 47 persons. Of the remaining 470, the great majority, *viz.*, 454 are boys between 5—15 years of age. The remaining 16 are adults. It will thus be seen that while practically the whole able-bodied adult population is engaged in one or the other kind of work a very large number of children who should be going to school are not doing so.

Another feature to which attention might be drawn is a large number of menial servants, *viz.*, 5·17 per cent. Considering that it is a rural area this high figure is perhaps indicative of the special social structure of this part of the country which may interest economists and social workers.

Economic Status.

Statement of economic status is given in table XIV.

Table XIV.

	Total number of families	Percentage
Paying income tax	5	0·28
Paying only Union Board tax ...	1,221	69·26
Paying no tax	520	29·50
Indigent...	17	0·96

The classification adopted in the table may not be considered adequate. Taxation was taken as a simple basis for which

definite information was available and may perhaps on an average represent fairly accurately the actual economic conditions. It will be seen that quite a high percentage of population pays taxes and may be considered as living under conditions of comparative ease.

Diet.

Table XV. Diet of the people.

Diet	Persons taking the diet	Percentage taking the diet
Rice and no meat or fish ..	93	0·91
Mostly rice and occasionally fish ...	7	0·07
Rice and usually meat or fish ...	9,508	93·05
Purely wheat, no fish or meat ...	...	...
Wheat and occasionally fish or meat	..	...
Wheat and usually meat and fish ...	...	..
Mixed rice and wheat but no fish or meat	2	0·2
Mixed rice and wheat, and occasionally meat or fish	...	...
Mixed rice and wheat and usually meat or fish	2	0·02
Breast-fed	274	2·69
Milk and infant diet	332	3·25
Others	...	...

Nature of food consumed by the people is attracting considerable attention and diet surveys have been instituted in different localities. Table XV gives a certain amount of information on this problem though it must be remembered that this survey was not conducted for the specific purpose. It is, however, clear that practically the whole population is on a common diet consisting of rice and meat or fish although it is predominantly Hindu. All the 93 vegetarians are widows.

Wheat diet is unknown amongst the indigenous population. The four exceptions are Pathans or up-country durwans in the employ of zemindars. It is interesting to note that although there are 327 children in the age-group 0—1 the number of breast-fed is only 274. Of these there are 9 children above one year of age so that out of 327 only 265 are breast-fed. Assuming that age recording has been fairly accurate the age of

weaning the child is not as high as it is usually supposed to be. Further there are altogether 332 children on infant diet. A majority of this number, namely, 270 belong to the age-group 1—3. Whether the remaining 202 in this age-group are getting any milk or not we do not know but it is a matter of considerable interest to investigate.

Health.

Table XVI. Health of people.

Health	Persons	Percentage
Well...	9,176	89·80
Indifferent	389	3·81
Acute illness	171	1·67
Chronic illness	482	4·72
	10,218	...

In the assessment of health given in table XVI no detailed examination was made and a person was considered healthy unless he exhibited some obvious signs of sickness. It cannot be taken as a measure of fitness or efficiency. Even so over 10 per cent of the people were not in good health and this presents another point for detailed investigation.

Water Supply.

Source of drinking water in the deltaic region of Bengal is a cause for constant anxiety on the part of public health authorities and it is customary to ascribe many ills to contaminated water. It is not our present purpose to discuss the merits or demerits of this view. It will suffice to say that it will be difficult to induce those who are not accustomed to rural life of Bengal to drink water from the village tank on account of its obvious physical defects, such as colour, taste and smell if not for any other reason. The water is in fact very rich in particulate and soluble organic matter mostly of vegetable origin. It is, therefore, a matter of surprise to them that as many as 90 per cent of the total population of these villages live and, shall we say, thrive on this water. As a matter of fact there are only two villages in which tube-wells have been sunk. Nearly half the population in one and about a seventh in the other use tube-well water for drinking purposes. For bathing (99·4 per cent) and domestic purposes (99·5 per cent) the tanks are practically the only source of water.

Alcoholic Drinks.

Alcoholic drink	Persons	Percentage
Not taken	10,131	99·15
Taken occasionally	86	0·84
Often	1	0·01

These figures may not portray the true picture. When the investigators questioned the persons about the use of alcohol they usually understood the bottled country-made liquor bought from a shop. The lower classes of people in this locality practise the extraction of juice from the palm trees. The fermented juice which is intoxicating, is taken by a large majority amongst the lower classes.

Sanitary Condition.

Opinions may differ with regard to the standards of personal and domestic cleanliness. There is, however, a general agreement that domestic and environmental sanitation in our villages is far from satisfactory. It is impossible to define and to assess sanitary condition in any universal unit. We did not come across any house which could be assessed as having really good sanitation. One thousand six hundred and four families lived under tolerably good condition while 159 could be classed as distinctly bad. Comparatively the sanitation of the Hindu houses was better than that of the Mohammedans as 8·29 per cent of the families in the former community as against 12·23 per cent in the latter lived under distinctly bad condition (*vide* table XVII).

Table XVII. Sanitary condition of families by communities.

Community.	Good.	Fair.	Bad.	Very bad.	Total.
Hindu ...	...	1,317	119	...	1,436
Mohammedan ...	...	287	40	...	327
Total ...	...	1,604	159	...	1,763

Reference to table XVIII will show that economic status of the families as determined on the basis adopted above bears no definite relation to the sanitary condition of living.

Table XVIII. Sanitary condition and economic status of families.

		Good.	Fair.	Bad.	Very bad.	Total.
Spt.	...		...	...	...	...
It. ...	...	...	...	...	...	5
Ubt.	...	...	1104	117	...	1221
Nt.	...	...	478	42	...	520
Ing.	...	...	17	...	...	17

Density of Population.

India is regarded as one of the most thickly populated countries in the world and Bengal leads the other provinces in this respect. The area under investigation is one of the most populous part of the province. However, as Bowley has said in estimating density in terms of persons per mile for comparative purposes it is difficult to attach meaning to this quotient. We have in fact two heterogeneous totals and the items of one have a varying relationship to the items of the other. Again even when we talk of density as living space per person and on this basis try to visualise conditions of overcrowding we must remember the truth of Leblank's remarks, ' Human beings with the exception of those confined in prisons and like institutions are never subjected to the continual pressure of population density that may be obtained in an experiment. An individual may be housed at night under conditions of excessive crowding, while two-thirds of this time is spent in an outdoor occupation with no crowding.'

Bearing these facts in mind perusal of table XIX shows that in a rural area where land is easily available and cost of erecting huts is not very high there are manifest conditions of overcrowding particularly when we consider large families. These remarks apply with greater force when we remember that the so-called rooms in these huts are very small indeed with respect to their cubic space and a part of this is taken up by household furniture and other belongings. Again we see that by far the largest number of families live in one-room huts. As a matter of fact only one-fifth of all the families possess more than one room and only 5 per cent enjoy the luxury of having more than two rooms. Further it would appear that the larger accommodation does not reduce conditions of overcrowding

because of larger number of inmates. If anything, as a rule, the pressure on space increases as the size of the hut becomes larger.

Table XIX. Distribution of families by persons in the family and the rooms occupied.

Persons per family.	Rooms. 1	2	3	4	5	6	7	8	10	12	13	Total.	Average room.
1	64	.	.	.	.	.	.	.	.	.	.	64	1·031
2	154	5	.	.	.	.	.	.	.	.	.	159	1·025
3	209	6	.	.	.	.	.	.	.	.	.	215	1·028
4	251	14	1	.	.	.	.	.	.	.	.	266	1·060
5	245	22	1	.	.	.	.	.	.	.	.	268	1·090
6	181	26	4	1	.	.	.	.	.	.	.	212	1·176
7	127	36	1	1	.	.	.	.	.	.	.	165	1·248
8	72	34	5	2	.	.	.	.	.	.	.	113	1·442
9	43	41	2	1	.	.	.	.	.	.	.	87	1·552
10	27	35	6	1	.	.	.	.	.	.	.	69	1·725
11	10	16	7	4	.	.	.	.	.	.	.	37	2·100
12	17	12	3	2	.	.	.	.	.	.	.	34	1.680
13	2	5	7	3	.	.	.	.	.	.	.	17	2·647
14	1	12	5	.	.	.	.	.	.	.	.	19	2·421
15	.	5	2	.	.	.	.	.	.	.	.	10	2·800
16	.	2	1	2	1	1	.	.	.	.	.	7	4·284
17	.	.	2	1	4	.	.	.	.	.	.	7	
18	.	2	.	1	.	.	.	.	.	.	1	4	
20	.	.	.	.	2	.	.	.	.	.	.	2	
22	.	.	.	.	1	.	.	.	.	1	.	2	
23	.	.	.	.	1	.	.	1	.		.	2	
24	.	1	.	1	.	.	.	.	.	.	.	2	
25	.	1	.	.	1	.	.	1	.	.	.	2	
Average persons for each column	4·487	8·438	12·652	10·894	19·4								

APPENDIX I

ALL-INDIA INSTITUTE OF HYGIENE AND PUBLIC HEALTH, CALCUTTA, DEPARTMENT OF VITAL STATISTICS AND EPIDEMIOLOGY, CHOLERA ENQUIRY, I. R. F. A.

Serial No. 10616

General Case Schedule

Village No. **House No.** **Family No.** **Investigator** **Date of Visit** **Week of Visit**

Time **Name** **Father's/Husband's Name**

Age 0- 0, 1- 1, 3- 2, 5- 3, 15- 4, 25- 5, 35- 6, 45- 7, 55- 8, 65- 9 **Sex** M. 10, F. 0 **Marital Status** S. 1, M. 2, W. 3

Religion H 4, M 5, C 6, O 7 **Caste** Br 0, Bd 1, K 2, Go 3, Mah 4, Bag 5, Bau 6, Ch 7, Dh 8, Dom 9, Kah 10, Mch 11, Nsd 12, Pkd 13, — 14

Occupation Ll 0, Ag 1, Cul 2, Spk 3, Fh 4, Ms 5, Ml 6, Art 7, Med 8, Stc 9, Wm 10, Swp 11, Hwc 12, Hwo 13, Hwnc 14, Beg 15, T 16, Ah 17, C 18, Nk 19

Economic Status Spt 0, It 1, Ubt 2, Nt 3, Ing 4 **Relation to Head of Family** **Health** Well 5, Indiff 6, A-ill 7, Ch-ill 8 **Name of illness**

Gastro-Intestinal Complaints: Appetite P: Good 0, Indiff 1, Bad 2; U: Good 3, Indiff 4, Bad 5 **Bowel Movement** Once 6 16, Twice 7 17, More than twice 8 18, Once in two or more days 9 19

Pain: Acute 1, Chronic 11; P 1... Acute P, Chronic U

	Pain		Acid Eructation	Biliousness (Vomiting)	Biliary Colic	Jaundice	Worms	Diarrhoea	Dysentery
Acute	1	P	2	3	4	5	6	7	8
Chronic	11	U	12	13	14	15	16	17	18

Previous Cholera History -1w 1, -2w 2, -3w 3, -4w 4, -6m 5, 6m- 6 **Duration** Hrs 7, days 8, Wks 9

Last Inoculation :—1st Dose Nil 0, Wks 1, Mnths 2, Yrs 3 **2nd Dose** Nil 4, Wks 5, Mnths 6, Yrs 7 **Previous Inoculation** Yes 8, No. 9

Other Serious Illnesses Name Date Duration

Water Supply Drink Domes Bath **Other Sources of Drinking Water** Well 1, Tube-well 2, Stream 3, River 4, Lake 5, Pool 6, 7

Tank No.

Diet R1 1, R2 2, R3 3, W1 4, W2 5, W3 6, M1 7, M2 8, M3 9, Bf 10, Mlk 11, — 12

Imported Food (Name)

Class :	Cooked	Cookable	Eaten raw	Nil
Reg	1	2	3	0
Occ.	11	12	13	

Where obtained, Locality Unknown Affected Unaffected **Alcoholic Drink** Nill Occ Often
4 5 6 7 8 9

Present Residence
(Name of *Para*) Permanent Reg. Visitor Occ. Visitor 1st visit **Duration-** Days Mnths Yrs.
0 1 2 3 4 5 6

Permanent Address :—Locality Not Known Affected Unaffected **Sub-Dvn.** **District**
7 8 9

Place of Business Not known Affected Unaffected Day visitor Lodger **Meals** H. L.
0 1 2 3 4 5 6

Other places of visit Regular Occassional Infrequent **Locality** Not known Affected Unaffected
7 8 9 0 1 2

Last absence -1w -2w -3w -4w -6m -6m—**Locality** Not known Affec Unaffec **Duration** -1w -2w -3w -4w -6m 6m
3 4 5 6 7 8 0 1 2 3 4 5 6 7 8

Purpose Marriage Attng. Cholera case Attng. funeral (cholera) Attng. non-cholera patient Mela Pilgrimage Business
1 2 3 4 5 6 7 8

Attending Melas Marriages Conferences & Other Public Functions (involving camping out) within last twelve months

Locality— Not known Affected Unaffected **District—**
0 1 2

Duration Days Wks Months **Date of Return** Days Weeks Months
3 4 5 6 7 8

Trips outside village within last twelve months besides those mentioned above

Locality— Not known Affected Unaffected **District**
0 1 2

Duration Days Wks Months **Purpose** **Date of Return** Days Weeks Months
3 4 5 6 7 8

Contact with cholera Patient Dead body **When** -1w -2w -3w -4w -6m 6m-
8 9 1 2 3 4 5 6

Reason Social Freq. Visit Occ. Professional Visit Freq. Occ. Nursing Living with patient **Relationship** Distant Close Very close
0 1 2 3 4 5 6 7 8

Rooms occupied by family No. **Sanitary condition** Good Fair Bad Very Bad **Flies** Many Fair Few Nil
0 1 2 3 4 5 6 7

No. of families in the House **No. of persons in family** (A) (C) **No. inoculated within last 6 months**

Last case of cholera in family : -1w -2w -3w -4w -6m 6m- **Termination** Well Still ill Dead
1 2 3 4 5 6 7 8 9

No. of cholera cases in family within last twelve months (excluding self)

APPENDIX II

CHOLERA CARRIER INQUIRY
INDIAN RESEARCH FUND ASSOCIATION
GENERAL CASE SCHEDULE INDEX

No. of villages.

I. Kamarpole. II. Jabrail. III. Mankhand. IV. Mathur. V. Gangadharpur. VI. Rekha. VII. Dori-Krishnagar. VIII. Kushberia. IX. Majerhat. X. Haridebpur. XI. Kultikari. XII. Basantapur. XIII. Andharia. XIV. Abdalpur. XV. Goanara. XVI Lakshmanpur.

Classification of caste, occupation, etc.

Caste.—Br.=Brahmin; Bd.=Baidya; K.=Kayastha; Go.=Goala; Mah.=Mahisya; Bag.=Bagdi; Bau.=Bauri; Ch.=Chamar; Dh.=Dhobi; Dom.=Dom; Kah.=Kaohara; Mch.=Muchi; Nsd.=Namasudra; Pkd.=Pundra Khatriya; 14=(Others.) (so called depressed class from 5 to 13.)

Occupation.—Ll.=Land lord; Ag.=Agent to landlord, etc.; Cul.=Cultivator; Spk.=Shop-keeper; Fh.=Food handle; Ms.=Menial servant; Ml.=Milkman; Art.=Artisan; Day labourer.

Med.=Medical; Stc.=Student, clerk; Wm.=Washerman; Swp.=Sweeper; Hwc.=Housewife cooking; Hwo.=Housewife cooking occasionally; Hwnc.=Housewife not cooking; Beg.=Beggar; T.=Trader; Ah.=At home; (stays); C.=Carter; transport of goods; Nk.=Not known.

Economic Status.—Spt.=Special tax (very rich); It.=Income tax; Ubt.=Union board committee tax; Nt.=No tax; Ing.=Indigent.

Health.—A.-ill.=Acute illness; Ch.-ill=Chronic illness.

Diet.—R_1=Rice only and vegetarian; R_2=Rice only and occasionally fish, etc.; R_3=Rice and fish regularly; W_1=Wheat 'atta' only and vegetarian; W_2=Wheat 'atta' only and fish, meat occasionally; W_3=Wheat 'atta' only and fish, meat, etc., regularly.

M_1=Mixed (R_1+W_1) Atta and Rice and vegetarian;
M_2= ,, (R_2+W_2) Atta and Rice and fish, etc., occasionally;
M_3= ,, (R_3+W_3) Atta, rice and fish, etc., regularly;
Bf.=Breastfed. Mlk.=Milk mostly.

THE CONSERVATION OF COAL RESOURCES IN INDIA: ITS ECONOMIC ASPECTS[1]

BY

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The Economic Importance of Coal.

Coal—in the modern world—is the great source of power. It is the mother of all industries. Coal and iron have created the mechanical age—just as the mechanical age has created the iron and coal industries in the world. Coal is power. With iron, coal is civilisation. The histories of iron and coal are not only parallel, they are interlocked with each other. Coal has been defined to be bottled sunshine. It is made out of the decayed plants that had lived in this world millions of years ago. The sunshine for millions of years on the primeval forests was imprisoned in the coal we use today. We thus use stored sunlight in our daily consumption of coal. Coal is the great store of carbon that nature provided for man aeons ago. It is thus one of the most important of our natural resources. Coal really acts like a powerful magnet which draws all the other industries round about it. It has given to England her industrial leadership of the world.

Further, in the present international position of the world coal is politics. There is strategy in the control of coal. A country without coal is at a considerable disadvantage as compared with those who have got plenty of it. Strategy in coal—and oil—has also led to politics in them. The need of locating coaling stations at important and strategic points throughout the world is ruled by politics and it rules politics in its turn.

1 Paper read before the Geological, Mining, and Metallurgical Society of India, December 1937.

In India, coal is one of the most important of our national industries. Its total production and the value of the output have stood as below:—

	Output (million tons.)	Value of output (Crores of rupees)
1923	19	14
1932	20	6·8

The number of labourers engaged in coal mining was 204,306 in 1924 and 165,567 in 1932. Although the industry is—for some years past—passing through a crisis the effects of which are reflected in the figures given above, it is still one of the foremost of our organised industries in India. Its importance in the economic life of the country can hardly be exaggerated.

Further, coal is important not merely as an industry by itself. It is also vastly important because it has contributed very largely to industrial progress in the world by the large number of chemical and other by-products which are contained in it. Some of these things are of such vital importance that they rank as key materials without which modern industrial progress would be totally impossible. Coal yields quite a large number of valuable by-products, *e.g.*, coal-tar, gas, light, motor-spirit, vaseline, oils, dyes, sulphate of ammonia, benzene, toluene, xylene, phenol, cresol, naphthaline, anthracene, aromatic chemicals and scents and hundreds of other valuable drugs and dyes. It is also possible to manufacture petrol out of coal. All these products are very valuable in human civilisation. We obtain from coal our lovely colours, our delicate perfumes, our explosives and fertilisers. Such is the wonderful variety of commodities we derive from the common coal!

Our Coal Reserves.

Expert and scientific opinions vary widely—from country to country—as to the amount of coal reserves still available in the world. The necessity and importance of conservation will naturally depend on the size of the reserve that is still lying untapped. According to Lippincott[2] the reserves existing at present within 6000 feet of the earth's surface have been estimated at 7,397,500 million metric tons. At the present rate of

[2] Lippincott—*Economic Resources and Industries of the World*, p. 138.

extraction, it would last for more than 6000 years. This reserve is distributed as follows:—

		Million metric tons	Percentage of the total
North America	...	4,971,500	67·2
Asia ...	...	1,402,993	19·0
Europe ...	...	758,494	10·3
Australasia ...	...	167,600	2·3
Africa ...	...	55,313	·7
South America	...	41,600	·5
Total	...	7,397,500	100·0

In India, different estimates have been made at different times by various authorities as regards the probable size of our coal reserves. Dr. Cyril Fox—a few years back—estimated that by the end of 1932 our total reserve was 60,000 million tons out of which 20,000 million tons were workable.[3] In 1935, Sir Lewis Fermor, Director of Geological Survey in India estimated[4] that taking annual consumption at $22\frac{1}{2}$ million tons and on the basis of a 100 per cent extraction our reserve of 4500 million tons would last for 200 years. But, as a matter of fact, with our present system of working, only about 50 per cent of the coal mined is actually brought to the surface so that—without making any allowance for increased demand for coal in the future—our reserves of good quality coal will be exhausted in 100 years. But Sir Lewis Fermor's forecast has to be slightly modified due to the fact that a considerable proportion of our coking coal reserves is held by Iron and Steel Companies who are not likely to extract the coal at the rapid rate estimated by him. The Tatas alone control 245 million tons of coal in reserve. The latest estimate of our coal reserves has been made by the Coal Mining Committee of 1937. They find[5] that our good quality coal reserve comes to 4889 million tons and at the present rate of our annual output (20 to 22 million tons) and taking ultimate recovery at 50 per cent it is expected to last about 122 years. Our supply of coking coal is just enough to last another 62 years. If the use of coking coal is restricted only to metallurgical

3 *Memoirs of Geological Survey of India*, Vol. LIX, pp. 342—45.

4 *Indian Coal Resources*, Bulletin No. 54 (Department of Industries).

5 Report, Coal Mining Committee, 1937, pp. 63-64.

purposes and if its use in railways, mills and factories is replaced by non-coking coal of good quality, then our reserves of non-coking coal of good quality—estimated at 3463 million tons—will last for 100 years only on the basis of a 50 per cent recovery. This is certainly ominous. Our reserve of inferior coal has been found to be practically unlimited. The value of coal reserves in a country will naturally depend on the quality of its coal. Coal is classified in different ways according to its chemical composition or the heat units that it will yield. The calorific value increases with the percentage of carbon in it. It is highest in anthracite coal which is most fully carbonised and which is the oldest kind of coal available containing 90 to 95 per cent of carbon, 2·5 per cent of hydrogen, 3 per cent of oxygen and a small percentage of nitrogen. The carbon percentage is the lowest in lignite which is not fully carbonised yet and which is really half-made coal.

The Robbery of Coal.

The life of the coal reserves will naturally depend on the rate of exploitation year after year. The robbery of coal goes on at a very rapid rate in every coal country in the world. The total output of coal in the whole world in 1934 came to 1100 million metric tons chiefly distributed as below[6]:—

(Figures in millions of metric tons)

North America ...	385	U. K. ...	224	Japan ...	37
South America ...	2	U. S. A. ...	376	Poland ...	29
Europe ...	497	Germany ...	125	Belgium ...	26
Asia ...	93	Russia ...	93	India ...	20
Africa ...	13	France ...	47	Saar ...	11

The estimates of total reserves and annual output of coal in some of the principal countries of the world shown below are very interesting. They have been collected from different sources, *e.g.*, the Report of the Coal Mining Committee of 1937, the Report of the Third World Power Conference, Washington (1936) and the Report of the Royal Commission on Coal Industry

6 *Statistical Year-Book of the League of Nations 1934-35*, p. 129.

in England (1925). Lippincott also gives his own estimates which differ from the other estimates mentioned above:—

	Total reserves in millions of tons.	Annual output in millions of tons.	Expected life of the reserves.	
United Kingdom	194,000	224	400 to 500	years
U. S. A. ...	2889,000	372	7766	„
Germany ...	,72,800	123	600	„
France .	20,000	47	425	„
India ...	4,889	22	122	„

It may be pointed out that estimates of total reserves, annual output and expected life of the reserves vary from one authority to another because the percentage of recovery and the depth of the workable seams allowed are not uniform. Further, the year or period to which some of the figures relate are not in all cases identical. It is clear from the figures given above that though our annual output is far below the figure prevailing in other countries, the life of our coal reserves is very much more limited as compared with them.

Supreme Importance of Conservation.

In view of the figures given above, conservation of national resources has, within recent times, become one of the major problems of human civilisation. A depletion of the world's principal mineral resources is fraught with the most ominous consequences in the future. There was a time—only a few decades ago—when the United Kingdom supplied the rest of the world with coal, iron-ore, copper, lead and tin. But today, her copper is gone, the lead and tin are nearing exhaustion and the output of iron-ore is steadily going down. The mining of coal has now reached a stage when it can only be carried on under the Law of Increasing Costs. The per capita output of coal is steadily going down since 1883. The movement for the conservation of national resources practically began towards the end of the last century. Public attention throughout the West was focussed on this question as a result of the steady destruction of forests, the rapid decline of the fisheries and the alarming exploitation of coal and other minerals. The relation between forest. rainfall and water-supply was first realised and the

gravity of the position which followed the steady denudation of forests was quickly comprehended. It was felt that it would be better for the world to be without gold than without trees. There are about 4000 uses which man derives from timber or trees. We derive from forests artificial silk, rayon, varnish, paper, clothing, cellulose, antiseptics, furniture, cork, charcoal, pencils, paints and a host of other commodities essential for human life. Most important of all, forests attract rainfall and agricultural prosperity, food and water supply and an equable temperature—all these depend primarily on the rainfall we get. America created the first national forest reserve in 1891 and in 1908, the U.S.A. Government constituted the National Conservation Commission which made a thorough and scientific survey of the natural resources still available in the country and the best means of conserving them. It was found that the rapid increase of population, rise in the standard of living, increase in trade and commerce and the rapid improvement in technique—all these led to an unceasing, remorseless and reckless exploitation of natural resources. People were actually living on capital—and that, the rarest of all capitals. Rosy statistics regarding trade and industrial output could not mask the skeleton which was throwing its dim shadows in front. Every kind of natural resources on which human civilisation has been built—on which human life and comfort depend—is now threatened. Land, forests, coal, iron, zinc, copper, tin, lead, timber, metals, oil, helium, petroleum, gasoline—some of which are vital necessities for the military security of the country—are in danger of exhaustion. As a result of the Conservation Commission in America, the Government has now enforced a stricter control on the unappropriated natural resources in the country. It has now stopped the old robbery of public domains by private interests. The Federal Government now owns an imposing acreage of reserved forests and potential oil lands, immense reserves of low-grade coals, a large number of irrigation projects and a vast area of unappropriated land. Waste has been prevented to some extent though there is still room for considerable improvement. A very high standard of engineering has been enforced in all recent coal and oil leases. The heavy losses in the competitive drilling for petroleum through the premature encroachment of salt water and the failure to utilise fully the pressure of dissolved gas in recovering the oil have been saved by the new technique of cementing the wells against the infiltration of salt water and this has doubled the recovery of the oil.

Attempts at Conservation in India.

The idea of conservation is very recent in India. We had hazy ideas for a long time that our resources may be limited but we never troubled for the future until recently. The fact of avoidable waste was first definitely established only about 20 years ago. In 1919, the Government of India invited Mr. Treharne Rees, a mining expert from England, to enquire into our coal industry and to recommend means of eliminating waste. Mr. Rees submitted a valuable report in May, 1919. In 1920 the Government referred the Rees report to a fresh Committee—called the Indian Coal-fields (Foley) Committee—which was appointed in January 1920. This Committee submitted a comprehensive report. It held that no improvement in the present mining methods could be expected without state interference and control. It therefore recommended statutory control over coal—in the interest of conservation—and compulsory sand-stowing with compensation to the mines. The scheme was to be financed by the levy of a coal cess. Nothing, however, came out of this report except an Aerial Ropeways Act that was passed in Bihar to give special facilities for sand-stowing. Except this, the other recommendations of the Committee were practically shelved as the Government did not think that the case was very urgent. Further, it hesitated to interfere with private rights so long as the coal reserves had not been properly ascertained. For 20 years after that, the Government slept over the matter. It did nothing. Meanwhile, the waste went on uninterruptedly. Government, however, put an embargo in 1920 on coal exports to prevent India from being depleted of her coal supply. The trade vehemently opposed it and it resulted in India losing her over-seas coal markets in no time. The Government lifted the ban later on but it was then too late to repair the mischief of the lost markets. India has not yet recovered the ground she had lost in 1920. Meanwhile, attention was focussed on the necessity of conservation from time to time by different people. Dr. Penman had stressed the urgent necessity of conserving coal resources in India some time back. In 1935, Sir Lewis Fermor's forecast—already mentioned above —arrested immediate attention. The Coal Mining Committee (1937) is the latest study of the problem and they have also recommended that a statutory authority should be set up which will control and enforce safety measures (*e.g.*, sand-stowing) on the mines, organise marketing through a central agency, allocate quotas, fix regional prices, amalgamate irregular and uneconomic mines, take over abandoned mines and readjust boundaries. It

now remains to be seen what action the Government will take on this report. We can only hope that this report will not be shelved again.

The Necessity for Conservation in India.

We will now consider some of the arguments for conservation that apply particularly to India. It is sometimes argued that the coal resources of the world will last for 6000 years and so there is no reason to worry about it. But it is important to note that in distributing the coal resources, Nature took no notice of the political divisions of the world. She is too colour-blind to notice the different colours on the map of the world. The result is that there is a very unequal distribution of coal amongst the different countries of the world. Coal is such a vital product in civilisation that it is not enough to know that it will last for 6000 years in the world. It is more important to know how long it will last for us in India. It is not enough to know that our neighbours—or potential enemies—across the border are in plenty. What we want to know is whether our own cupboards are full. Since our own supply is very limited, the case for conservation is very strong even though there might be coal enough in the world for 6000 years. Coal is an irreplaceable national asset. It is a vital key industry and the coal resources should not be wasted by uneconomic exploitation for ephemeral private profits. It has often led to results economically, socially and nationally undesirable. There is no room for laissez faire in coal. Private capitalists selling coal for profit or Joint-Stock Companies selling coal with their shareholders' capital are psychologically unable to take a long view. Their immediate interests are so close to their eyes that they can see nothing else and nothing beyond it. By the nature of their own private interests, they are more concerned with the immediate present than with the remote future. They suffer from an economic myopia which badly needs correction. Coal is a kind of public utility and the future of every industry in India and her whole future development will depend on coal.

The story of the coal industry—in almost every country, but much more so in India—is a story of waste[7]—all the way from the mine to the boiler. Much of this waste is preventable by adopting better and more economical methods by incurring some additional expense.[8] Conservation is imperative to save the

[7 & 8] These questions are treated more fully in my paper on Methods of Coal Conservation in India.

avoidable wastes and prevent the ruthless exploitation in our key materials. Almost every country has been forced to conserve its resources by checking wastes in production, distribution and consumption. The private ownership of minerals is not always in the best interest of the community. As the Royal Commission on Coal (1925) pointed out, it would have been very fortunate if 350 years ago when the judges declared that the underground minerals went with the surface and belonged to the surface-owner, legislation had reversed that decision and had reserved the coal to the State. In India—unfortunately—the danger of exhaustion coincides with wasteful and uneconomic exploitation. Private capitalists cannot be allowed to pursue their own selfish interests at the expense of the community. They are very often obstinately opposed to organised and planned cooperation. The Managing Agency System—under which most of the coal-mines are worked —is responsible for uneconomic working. The great firms of managing agents like Jardine Skinner, Andrew Yule, Bird & Co., Kilburn and Turner Morrison, etc., derive large commissions on the basis of profits earned. It would be to their interests to maximise their commission during the subsistence of the contract by ruthless exploitation regardless of future consequences. Rationalisation cannot be left to chance or to the sweet will of selfish capitalists. It is the legitimate function of the state in such cases to take the initiative, direction and supervision and enforce a policy of rationalisation. The coal industry in India has so far done little to help itself because it is "riddled with jealousy"[9] and saturated with suspicion. State control may limit private freedom of enterprise to some extent but where private enterprise runs riot, where it cannot or will not provide for the essential needs of the future, the state must step in—not as a matter of choice but as a matter of necessity. It is not an attempt at coercion on the coal owners. It is the sheer logic of necessity.

It is often argued that with the appearance of oil as a formidable rival to coal, the necessity of conservation is not so strong as before. But Sir John Cadman—the great authority on the subject—has recently estimated that the oil resources of the world will last for 20 years more. 246 million tons of petroleum was produced in the world in 1936 out of which the U.S.A. produced 150, Russia 27, Venezuela 23 while Rumania and Iran produced 8 each. At this rate of extraction almost every country in the near future will find difficulties of further supply. Sir

[9] Coal Mining Committee, 1937, p. 103.

John Cadman's warning may be quite correct. If this is true, then the importance of conserving coal becomes self-evident. Further, with the political separation of Burma from India, India will henceforth be entirely dependent on foreign sources for the supply of her oil fuel. A foreign supply is bound to be insecure. It is apt to be hazardous. We should, therefore, be prudent in time and save our mines as much as we can.

It is vitally necessary to safeguard the supplies of our good coal for our metallurgical industries so that our future industrial development on the one hand and our military security on the other may not be jeopardised. Like coal, steel is also a key industry in the country. India's reserve of good coking coal fit for metallurgical purposes is estimated at 1426 million tons. It is found only in the Jherria, Raniganj, Giridih and the Bokaro fields. At our present rate of consumption—11 million tons per annum—taking ultimate recovery at 50 per cent—our reserves will last for another 62 years.[10] Sir Lewis Fermor has estimated that India had enormous—almost inexhaustible—supplies of high-grade iron-ores but she would not have good and suitable coal enough for its smelting. This reveals an alarming prospect for our metallurgical industries in the future—and therefore of all other industries put together. The future is certainly ominous. And yet both the Tata and the Bengal Iron and Steel Companies are allowed to sell coking coal from their own mines in the open market—although they know full well that our reserves are strictly limited. This should be immediately prohibited. As the Burrows Committee suggests, if the companies refuse to stop such sales the tarrif protection enjoyed by them should be immediately withdrawn.

We have discussed, so far, the necessity for conservation. Our plea is for a policy that will protect our priceless possessions from foolish and irresponsible pillage and plunder. But there is another side to the shield to which it is necessary to turn before we can be definite on matters of policy. Let us turn to it now.

The Arguments against Conservation.

The supreme necessity of conserving our natural resources is admitted on all hands. But there are people who oppose it—as a policy—not because they are always incapable of taking long views but because they look at the problem from a different angle altogether. In any treatment of the question, it would be

10 Report, Coal Mining Committee 1937, p. 63.

unfair not to state their position. Their opposition to conservation is based mainly on the following grounds.

The theoretical arguments for conservation they concede in full. But they honestly ask—if conservation is really necessary. They point out that we are not quite sure of our estimates. If the reserves are really limited, effective conservation would be absolutely justified. But if, as Lippincott points out, the world's reserves will last for 6000 years to come then clearly there is no case for conservation. Why create needless nightmares? Why raise phantoms in the clouds and then rush to fight them? Why worry about the presumed needs of posterity 6000 years hence when we have our own worries in plenty to square?

Before we enforce conservation, it is necessary, first of all, to stop waste. Our present methods of production, distribution, transport and consumption of coal involve enormous wastes.[11] There is of course a limit up to which the prevention of waste can be carried. But economies—wherever possible—cannot be neglected. Our methods are being daily improved. It is just possible that, in the future, our methods may be so perfected as to leave little coal underground which is now left as lost on account of our imperfect mechanical methods and equipments.

We cannot forget that India is still in her industrial infancy. We should be really very careful about doing anything that is likely to impede it because of the conjectured needs and interests of posterity. A strict policy of conservation may easily impede the normal industrial development of India. If conservation is to be applied at all it should be limited to coking coal only.

Further, it is good to be prudent but bad to be panicky. It is good to be cautious but bad to be over-cautious. It is almost certain that before our coal resources are exhausted, science will find out new substitutes which will do duty for coal. Science will come again—as in the past—to the aid of man long before a real coal famine starts. During the growth of modern industry "timber was displaced by coal as the world's primary source of heat and power."[12] Coal was then the main source of heat and power for a long time but since the Great War, its supremacy has been challenged by new substitutes like oil, electricity and water-power. "The proportion of the world's total heat and power derived from coal has declined from 71·4 per cent in 1913 to 56·6 per cent in 1932!" Oil and natural gas have

[11] The question is more fully treated in my paper on Methods of Coal Conservation in India.

[12] Report of the German Institute of Business Research (quoted in the *Economist* July 24, 1937, p. 176).

steadily increased their contribution from 5·9 per cent in 1913 to 20·3 per cent in 1935. The contribution of water-power has trebled—from 2·4 per cent in 1913 to 6·6 per cent in 1935. Coal may thus, before long, be superseded by oil, gas, hydro-electricity or by other undiscovered sources of energy. Quite a number of substitutes are already available for coal. Science has already discovered so many ways by which our source of power may be indefinitely increased. We can obtain power directly from the light of the Sun or from oil and spirit. As an eminent authority points out[13]—" Ships and motor cars are today driven by oil and spirit. We can produce motor spirit today in enormous quantities with the help of bacteria. We can ferment grain, straw and grass—in fact all kinds of cheap and waste vegetable matter—and by distilling the fermented liquor we can obtain alcohol which will surely become one of the greatest sources of power for the future generations. A million microbes are required to make a drop of motor spirit and yet these micro-organisms grow with such amazing rapidity that a spirit factory could turn out enormous quantities of motor fuel a day. Not only can power alcohol be obtained from grain, potatoes and straw but it is also now produced on quite a large scale from flowers.[14] The direct heat of the Sun has been used by Mr. Frank Shuman—an American inventor—in a wonderful engine which has been successfully employed in Egypt." In the great heat of the tropical regions, the concentrated rays of the Sun can store up enormous heat which may be utilised by " Sun engines " for the supply of power. Engineers have devised new types of wind-wheels which are geared to dynamos in order to store up electricity so that the power is available even when the wind drops. Italian engineers are trying to tap the terrific heat underground —especially in volcanic regions—and their daring idea has already met with a fair measure of success. Italy lacks coal but she does not lack brains which will find the power she needs in a different form. Volcanic heat is already driving engines and creating electricity in Italy. Water-power—either from water-falls or from tides in rivers and seas—can be and is being utilised in large amounts for the service of man. The recent hydro-electric development in the United Provinces and Bombay is a case in point at our very door. The natural incline of the rivers has been utilised to generate electricity, light the towns and even villages, run mills and factories, raise water in tube-wells,

[13] *Book of Knowledge* (Arthur Mee, Vol. 7, pp. 4811—13).

[14] The Indian *Mahua* growing wild can produce a million gallons per year.

install radios in the villages for rural uplift schemes, and in a hundred other ways it has increased the material heritage of mankind. Yet, all this huge water-power has for countless years gone to waste. The United States has potential resource in water for 60 million horse power of which 15 are already in use. The water-power resource available in the U.S.A. is about equal to the power now obtained annually from coal. Canada has a reserve of 70 millions. Germany is actually using about 50 per cent of her water power for generating electricity. The sea-water is allowed at high tide to run into a basin which is dammed and then it is used to drive dynamos and generate power. The resources of available water-power are still largely undeveloped in most parts of the world. The scientists are making a ray of light produce sugar from carbon dioxide and water. The sugar is then easily converted into starch which can then be fermented by microbes to produce alcohol. Very recently, attempts have been successfully made to run cars and buses on hydrogen instead of petrol. The use of hydrogen has been made possible by the invention of a rotary valve which admits gas under pressure to cylinders of an internal combustion engine. It enables an engine to be run not merely on hydrogen but also on coal-gas and low-grade fuels primed with hydrogen.[15] There may be many other possible sources of power still waiting to be explored. Science will probably discover in atomic energy a source of limitless power which may be harnessed in future for the service of man. In these and other ways, Science will probably solve the final problem of man's search for power.

Conclusion.

The advocates of conservation do not deny that the possibilities of science are really great and that substitutes may be found which may supersede coal in the future. But they point out that though substitutes may be found in place of coal already some of them—*e.g.*, oil—are in danger of exhaustion. Water-power may be plentiful but it is limited to particular localities only and it has to be transmitted over long distances at a heavy cost. These and other difficulties are conveniently ignored by those who oppose conservation. They would shut their eyes and shout that they see no chasm in front of them! Further, the advocates of conservation do not want to build on the mere chance that substitutes may be ultimately found. All these are possibilities

15 Hydrogen—The New Fuel by Autolycus (Statesman, 15th August, 1937).

—mere possibilities—which may or may not—happen. No country can stake its future on mere possibilities nor can it barter away its future on mere chance. The future existence of a country is much more important than pious hopes and it must be insured against chance. The victories of science are brilliant, its achievements are magnificent. At the same time, we cannot forget that while the victories of science will always be memorable among the most decisive battles of the world, there are still thousands of almost insoluble human problems for which Science has yet discovered no remedy nor offered any cure. What, if the coal problem becomes one of them? What will happen then? Can India then run her own industries with blasted hopes or feed her own people on elegant phrases? Can she then live on mere bouquets without coal—on mere metaphysics without power? In a question of life and death, there is no room for chance—there is no opportunity for a hazard. We need a policy. We have so far never worked on a rational mineral policy in India. We never had any policy at all. We have simply drifted—and muddled—like a shuttle-cock from one difficulty to another. India suffers today—not so much from a lack of minerals as from a lack of a rational policy in minerals. Today there is time yet; tomorrow it might be too late.

THE ECONOMIC EFFECT OF ROAD IMPROVEMENTS IN ASSAM

BY

MR. ALI MUHAMMAD.

It is a welcome sign of the times that the old mentality of underestimating the importance of good roads to a community, and laying all the stress on extending educational and medical facilities to the people, has undergone a great change in recent years, and the public as well as the popular leaders have come to appreciate the value of good roads and to recognise the great benefits that a backward country can derive from a Road Improvement Scheme.

2. The extensive improvement to the main Government roads in Assam during the last six years has resulted in great expansion of the motor industry in the province, in opening out rural areas, in lowering the transport cost of agricultural produce, and in a gradual uplift of the villager whose contact with the townsmen has been greatly facilitated by the bus services, and as a consequence of which his outlook in life is slowly broadening. The facility with which people can travel from place to place in bus services and the savings of time and money in most cases as compared with a train journey, have made the bus services secure a firm hold on the public mind, and it is a foregone conclusion that the public of future will not allow the road system to deteriorate but will emphatically insist upon its further improvement. While tangible benefit that has accrued from road improvement can be readily understood by the public, they cannot be expected to have more than a remote idea of the great economic advantages that result from the replacement of inferior roads with better ones, and from initiating a Road Extension Scheme. I will endeavour to deal with this point as briefly as possible. Let it be understood first of all that a good road system is a great national asset. Any money spent on the construction of roads and bridges immediately becomes a perpetual asset to the province which cannot be alienated even by foreign conquest.

3. Secondly, with the exception of certain steel bridges, all outlay on roads means money spent on local labour and materials such as stone, boulders, gravel, lime, timber, etc., and tends to relieve unemployment.

4. Thirdly, it encourages motor industry and thus creates new avenues of employment for workers and new sources of profit to investors.

5. Fourthly, the economic value of any highway is the cost of the road itself, plus the cost of operating vehicles over it. The latter cost constitutes the largest factor in most problems of highway economics. In England it is estimated that the total annual cost of operating the private and commercial vehicles amounts to roughly ten times as much as the total annual cost of the roads. It can be well understood from this that if through the improvement of the roads the operating cost of the average vehicle can be reduced 10 per cent, the annual saving will then equal the total annual cost of all the roads and streets. Besides this the travelling time saved will be enormous and its money value may go up to millions. A consideration of these facts will make one realise, what a great loss our inferior roads are to us, and what a great economic gain can be secured to the province if the road system of the province was designed and constructed to improved specifications.

6. Fifthly, there are indirect benefits which arise from improved road communications, but which are more difficult to compute and often intangible since they may only be perceived through general economic improvement of a country.

7. Lastly, there are such benefits as saving of human life through quick medical relief or prevention of accidents, amelioration of health conditions and penetration of civilising ideas to remote corners of the country.

8. Just note on the geography of Assam places which are not served by roads or are served by bad roads, and you will find the standard of life of the people of such places very low, their earning capacity poor, their comforts very limited, their trade and industries in a sluggish condition, the level of their culture far behind others who are not so handicapped. Bridge a couple of ferries which are restricting transport, gravel the stretch of road which connects with the railway and in a few years you will notice a marked difference.

9. In an article in "Highways and Bridges" Mr. E. W. Richards has written on the economic value of Road Improvements and his concluding remarks which are produced below are worth writing in letters of gold:—

"Roads are the arteries of the body politic, and the very life-blood of a country flows along their courses; upon their adequacy or inadequacy depends the richness and the fulness with which we live. For if there is any motion in Society, the

road, which is the symbol of motion will indicate the fact. When there is activity or enlargement, or a liberalising spirit of any kind, then there is intercourse and travel, and these require roads. Nothing makes an inroad without making a road.

All creative action whether in Government, industry, thought or religion, creates and is created by roads."

10. Let us next consider what influence the execution of public works exercises on economic recovery in a country and on unemployment.

The American Press was laying stress as long ago as 1932 on the inauguration of construction of large public projects for securing economic stability in America. The "Scientific American" of July 1932 wrote as follows:—

"Public Projects."

"Engineers have recently been more insistent than ever that the way back to economic stability and to a period of sane progress—without the hysteria that characterised the 1929 period —lies in the inauguration of construction of vast public projects. Coupled with the fact that this idea seems to be taking stronger hold, it must be noted that a realisation of the necessity for hard work by all is rapidly becoming more general.

While no one will subscribe off hand to this construction plan, without qualification, *it has a great deal of merit.* There are thousands of miles of roads here and there that need improvement or that could be made into important highways to alleviate traffic conditions on shorter routes. With the normal increase of automobiles that is expected after the up turn, every mile of these roads will be needed. Then there are bridges, tunnels, parks, public buildings and schools by the score on which construction has too long been deferred or which need renovation, modernization or replacement. . . .

If we have confidence in the future, well balanced programmes of construction cannot fail to help up upward."

The importance of this subject, also led to an enquiry being instituted by the League of Nations' Organisation for communications and transit, the results of which have been published in a pamphlet entitled "National Public Works" issued from Geneva in 1936. The enquiry which was referred to over fifty different Governments revealed that the majority of the Governments gave a definitely favourable opinion as regards the influence of the execution of public works on economic recovery in their countries and on unemployment. In this connection the experts considered that if it is desired to obtain a really satisfactory result, the work undertaken during periods of prosperity *should be*

accelerated rather than slowed down in times of depression. It would indeed be desirable to prepare programmes of work in advance in such a way that the operation undertaken in times of depression may not be of an improvised character which might have unfortunate results on the economic system as a whole.

11. The following extracts throw further light on the subject:—

"Lastly, as regards the opinions of the Governments concerning the effects of the works on a revival of economic and industrial activity, and on unemployment, it has been considered in certain countries that, *when unemployment is wide spread, the execution of public works is an imperative necessity and a duty on the part of the community, in order to find work for the unemployed.* In some cases, public opinion has objected to money doles and has insisted on relief being given through work. In this connection, the Experts are of opinion that, in any case, only works which are either directly productive or operations of recognised general utility should be undertaken. Such works should not be described as relief works, since it is only a question of carrying out at the most opportune moment operations which are fully justified in themselves.

Furthermore, the Experts recognise that precautions must be taken to obviate the drawbacks which might result from the professional disqualification of certain workers called upon to take part in such work."

Here is something which constitutes the result of the experience of different nations and points out one of the methods with which we can deal with the question of unemployment in the province of Assam. There can be no two opinions that of the public works, road building is the most important and at the same time offers the largest scope of employing unskilled labour, creating opportunities for educated men to take up contracts, and resulting in improvement of roads which will expand the scope of the motor industry and provide work for enterprising young men.

12. A consideration of what has been written above makes it plain, that road building in Assam is virtually nation building and you cannot neglect the one without neglecting the other. It is essential for the economic stability and progress of Assam that large public projects be planned and taken up as funds permit, the aim being the Improvement of Roads, on the following lines:—

(1) New roads should be opened out to such parts of the province which are inaccessible at present,

(2) That the unbridged rivers be bridged.

(3) That the existing roads be provided with better surface.

(4) That the road development plan should aim firstly at providing good roads to all important places in a district, next to provide interconnection between different districts, and lastly through communications should be established between the Assam Valley and the Surma Valley on the one hand and between Assam and Bengal on the other.

(5) That in the execution of all such schemes indigenous labour and material should be employed in a predominant manner.

13. Apart from the benefits already enumerated in paragraphs 2 to 7 above, if road improvement is carried out on the above lines, the result is bound to be an increase in the revenues of the province through the following sources:—

(1) Motor Taxation.

(2) Increase of income-tax due to expansion of trade and industry.

(3) Increase of land revenue due to opening up obscure and inaccessible areas.

Besides this, improved communications are sure to lead to greater prosperity of the country, in fact it is rather a matter of surprise that although it is well known that backwardness of the province has been due to its climatic conditions and inaccessibility, little attention has so far been devoted to remove any of the main causes. While climatic conditions cannot be improved through any human device, they can most assuredly be mitigated by providing such facilities as would nullify the inclemencies of weather and ensure comfort of the people. We cannot reduce the heat of blazing sun, but we can get our house air conditioned for removing the discomfort of heat. Similarly we cannot stop rain from pouring down, but we can make our motor cars in which we travel rainproof, and make the surface of the road metalled and bituminised so that we may be immune from the effects of the rain and be able to cover in minutes the distance which it would otherwise have taken us hours to go over. We cannot stop floods and reduce the number of water channels, but we can help in regulating the flow of all such channels, and

bridge them over, so that they are no longer a hindrance. It is thus clear that the remedy for both the climatic conditions and bad communications which are holding back the progress of Assam lies in the inauguration of large Road Improvement Schemes, and those public men who are planning for the future progress and prosperity of this province cannot afford to disregard this most important factor. It is high time that the various ways in which public projects influence the economic stability and advancement of the province should now be weighed in the scales, their utility properly appraised, and proper place assigned to them in the nation-building programme which the present popular Government must be thinking of drawing up.

THE ECONOMIC FUTURE OF THE INDIAN CULTIVATOR

BY

MATU RAM AHLAWAT, M.A., B.Sc. (Agri.).

It has now almost become a fashion with the intelligentsia and the "Classy" to paint the Indian cultivator in the darkest black. If the press calls him a fatalist and a stuck-in-the-mud, the Junkers dub him as unimaginative and unambitious. Sometimes invidious comparisons are made between the Indian ryot and his compeer of the West, irrespective of the fact that the circumstances, under which the peasants of different countries have to work, differ so widely that in certain cases there is nothing like a common-ground at all, where they could be made to stand for purposes of comparison. In this short article it is the aim of the writer to expose some of the fallacious arguments which these zealous 'reformers' advance in order to show that the whole blame for the backwardness of our agricultural industry lies at the door of the cultivator, the poor creature who is too orthodox to break from the past traditions and keep pace with the fast moving world, but who is prompt enough to wield the most up-to-date weapon that could be used for digging his own grave. Further, an attempt will be made to peep, as far as possible, into the economic future of the cultivator.

It must be made clear at the very outset that these lines are not meant to serve as an apology for the cultivator's present attitude towards his industry. That he has his imperfections and shortcomings, goes without saying. All that is sought is to bring out the fact that his weakness, far from being inherent in him, is, in nine cases out of ten, the child of circumstances over which he has little control, and further, that wherever these circumstances have been changed so as to leave him some scope to exercise his discretion, he has not been found wanting in initiative and enterprise.

The pertinent question that next suggests itself after this much prelude, is, Why should there be two opinions about the causes of the poverty of the Indian peasant? For the answer of this question we will have to dive deep into the past history of this country.

The Western scholars, coming, as they did, in this country without any interpretative setting for their study, are responsible for a great amount of loose thinking about and unwarranted

criticism of our cultivator. To make matters worse, our urban leaders, who were themselves not much better than these scholars in this respect, conveniently drank in the verdict passed by the latter, selected some catch-phrases from their writings and freely prostituted them to their own ends.

Those Western scholars found that India was rich in natural resources—the mighty rivers, extensive forests and above all, a great diversity of climates and soil. And yet the tiller of the soil was living in abject poverty! There was nothing easier for them than to hold the cultivator himself responsible for his woeful plight. He must needs be hide-bound and custom-ridden or else he could not possibly starve amidst abundance. Why can't he produce as much sugar per acre as the peasants of Java and Hawaii do? Why should he cling to his wooden implement, wrongly called a 'plough,' when the market offers him most up-to-date and time-saving implements which do more work, and do it more efficiently and conveniently?

In this vein these enthusiasts would go on denouncing the Indian ryot without ever thinking whether or not they were in a position to sit in judgment over the people of a country whose social, religious, political and economic institutions were fundamentally different from theirs. The genesis of the defection of these scholars was the fact that they usually came on a short visit to this vast country and consequently they could, at the most, make a selective and partial study of the peasantry and the material on and with which it works. Thus they failed to encompass the whole field in a true perspective and to assess it correctly. The result of their meticulous labours has, of necessity, been a caricature of truth.

On the other hand, those foreign writers who have had the occasion of staying in the country for a fairly long period have a different tale to tell about the cultivator. Among such writers may be mentioned the names of Howard, Darling, McDougall, etc., etc. They frankly admit that the Indian peasantry, taken as a whole, puts up a heroic fight against the inclemencies of a proverbial capricious Nature, and that its farming practices are suited to the circumstances in which it has to work, as they are based on his age-long experience of farming. The Royal Commission on Indian Agriculture, likewise, bears a testimony to the industry, perseverance and farming experience of the cultivator. It remarks, "In the conditions in which the ordinary cultivator works, agricultural experts have found it no easy matter to suggest improvements." Again, "The wisdom of many agricultural proverbs stands unchallenged by research."

The true explanation of the peasants' pitiable plight is found in a host of natural, economic and social handicaps which are the usual lot of the Indian peasantry. But perhaps it is a truism that all the handicaps are, more or less, spelt in one word—ignorance. This curse acts as a leaven to start the vicious circle of debt-disease-and-death. When it is remembered that, out of a total of about 31 crores of Indian peasants there is only an infinitesimal number which can be called as literate, it is easy to understand why the peasant is on an inclined plane and why he is progressively deteriorating. Unless this halter of illiteracy is removed from his neck, he cannot be expected to change his angle of vision in regard to some of the most knotty problems that are facing him today, problems which if not tackled boldly, are sure to bore large holes in his income and thus nullify the effects of all other efforts directed towards improving his financial position.

To mention only one of these problems, the pressure of human and bovine populations has so much increased on the land that a shortage of food and fodder has already become a regular feature of our agricultural economy. The present supply of food is sufficient only for about 2/3rd of human and 2/5th of the bovine populations. This means the existence of a state of chronic starvation among both men and cattle. And to this the fact that both of these populations are increasing at a maddening speed, and you have before your very eyes the picture drawn by Malthus some 150 years ago. It is said that in India children are not 'born' but are, as it were, 'rained down' from the heavens. Already there are 350 millions of mouths to be fed and it is estimated that they will increase to 400 millions by the year 1941. The bovine population has increased from 152 millions to 200·5 millions between 1912 and 1932. These are staggering figures indeed!

It is very gratifying to note, however, that the man-behind-the-plough, the erstwhile Cinderella of his compatriots is now the proud recipient of the attention of everybody, high or low, official or non-official. There is a veritable race going on between the various political parties of the country to woo the cultivator, which is a very healthy sign so far as he is concerned and we need bother about none else. But it should be remembered that his problems are inseparably interlinked and should be taken as one whole, otherwise progress will be very slow, if at all. Only a couple of years ago he was viewed as a bundle of a number of each one of which, to his utter confusion, was thought to require the attention of a separate expert. The cry was, of

necessity, lost in wilderness. Writing of that method of approach to the cultivator's problems, Mr. M. L. Darling remarked that no doubt the lessons that each of the beneficent department had to impart to the cultivator, were of the utmost importance, " but unintelligible or ignored unless taught in his dialect spiced with his wit, illustrated from his life and quickened by sympathy with his almost overwhelming difficulties."

The present state of our agricultural industry is frankly disquieting, and, but for the unmistakable hopeful signs that have already been noted, it could be safely predicted that the future of the Indian peasantry would be a shade darker. The fact, that at no other period within recent history had the cultivator so much say in his own making as he has now, lends considerable strength to our hope that he shall refuse to be a Lazarus any longer.

What with the recent change in the Indian Constitution, and what with the personal interest of His Excellency the Viceroy, Lord Linlithgow, in the cultivators' well-being, the agricultural industry has received a wonderful fillip. All kinds of researches that have any bearing on the agricultural problems are being exploited to the fullest extent. The Imperial Council of Agricultural Research itself is financing as many as ninety schemes, which include research in the production of all the important crops of the country, like wheat, cotton, rice, sugarcane, jute, tobacco, oilseeds, tea, coffee, rubber, fruits, fodder crops, grasses and millets, research in plant and animal diseases, in the improvement of cattle and poultry, in the marketing of plant and animal products, and research in agricultural engineering and in soils and fertilizers. Still, as Sir John Russel points out, so far only the fringe has been touched; the number of agricultural problems in India is legion.

Few countries in the world offer so much scope for agricultural improvements as does India. At present only about 37·5 per cent of the total area of the country is under crops. By the application of scientific methods and machinery, a considerable portion of the area classed as " culturable waste," and the whole of the area now annually left fallow, can be added to this cropped area. But it must be admitted at once that even with this much addition the total cropped area, as such, will be grossly insufficient to maintain such a huge population as ours in anything approaching a decent standard of living. What is needed is, that on the one hand production must be increased and on the other, the present high pressure of population dependent upon agriculture (*i.e.*, about 90 per cent of the total) must be

reduced by developing the country industrially and thus diverting the surplus population to industrial pursuits. Experts agree at long last that unless agricultural and industrial developments go hand in hand, there can be no lasting cure for India's economic ills. It augurs well, therefore, that the idea of Planned Economy for India is obsessing many minds now. In fact in certain provinces steps are being taken to give this idea a practical shape.

It is very painful indeed to have to admit that the outturns of the cultivators' crops are miserably low. Not only do they not bear any comparison with the outturns of other countries, but they also pale into insignificance even when compared with those obtained at Government Agricultural Farms. For instance, while the Department of Agriculture, Punjab, has obtained as high yields (maximum) per acre for wheat, cotton, and sugarcane, as, 50 maunds, 40 maunds and 15 maunds (gur) respectively, the corresponding yields for the cultivators' crops are not more than half of these figures. A sugar factory in Deccan has already obtained a yield of 28—50 maunds cane per acre. These figures indicate the extent to which production can be increased in India almost immediately only if confidence is inspired in the cultivator by suitable means of which mention has already been made. And yet it is only a beginning; the scope for improvement is so unlimited that one dare not hazard a guess in this scientific era in which even an atom is believed to possess a tremendous potential force.

The most important single factor in India, that sets a limit both to the extension of cropped area and to the increase in outturn per acre, is the supply of water. The rainfall in this country is characterised by its unequal distribution throughout the country and the year, by its insufficiency on the whole, and, what in worse, by its liability to fail altogether in certain years. Verily, agriculture in India is a gamble in the monsoon. No less than 4/5th of the total cultivated area is still dependent upon rains for its water supply, and this despite the fact that India possesses some of the most spectacular irrigation schemes in the world. But, while there seems to be no great scope left for the extension of canal irrigation, Sir William Stampe, the Chief Engineer with the U.P. Government, has opened a vast field for the electrically-worked tube-wells. The Ganges Hydro-Electric Grid Scheme promises to supply well-water at rates much cheaper than even those charged for canal water. This new scheme for tapping underground water, the renewed efforts now being made towards afforestation which are calculated to augment the present annual precipitation, the anxiety of the Central Irrigation Board

to find a solution for the excessive amount of seepage in the canal beds so as to make the best use of the available supply of canal water, and finally, the exhaustive researches in dry-farming methods and practices now under way both in India and abroad, all these steps are so many eloquent evidences of the fact that our hopes of bringing about an agricultural revolution in India, will not be allowed to be wrecked on the rock of paucity of moisture in the soil.

Having thus increased production, the next step is to find a profitable market for the cultivators' surplus produce. The Marketing Staff now engaged in a marketing survey of the country will, as its survey so far suggests, be able to find a practical solution of this thorny problem. At present the value of our agricultural products exported annually comes to the tune of 100 crores of rupees. With the increase in the surplus, either for export or for consumption by the indigenous industries for the promotion of which there is a strong feeling in the country, the cultivator may reasonably be expected to enhance his income. The indigenous industries, besides providing a market 'next to the stump,' will exert a salutary influence over the cultivator in many other ways as well.

Lest it should be inferred from the above, that since further improvements in agriculture are to be dependent upon the industrial development of the country, the pace must necessarily be slow, it seems called for to remind the reader that by virtue of her climatic conditions and geographical situation, India has an effective say in the international trade and hence there is no fear of our raw materials finding the doors of the transoceanic markets closed against them, not withstanding the fact that at present the trend of most of the nations is towards economic self-sufficiency, and that the cry, "each nation for itself and the devil take the hindermost," is uppermost in the international atmosphere. The recent Report of the League of Nations Committee of Experts for the Study of the Problem of Raw Materials reveals how much alarmed the predominantly industrial countries are at the prospect of restrictions being placed on exports by the agricultural countries.

Thus, from whatever angle the present political and economic situations of the country and for the matter of that of all the nations, be viewed, it is abundantly clear that the tiller of the Indian soil is destined to play an important rôle in the country's political and economic drama. Indeed, it will be in the fitness of things if India adopts Turkey's new motto: "The Master of this country is the Peasant."

REGULATION OF AGRICULTURAL PRICES (A CRITICISM)

BY

S. C. CHAUDHRI.

The problem of agricultural prices has become a live issue in the body politic of the economic world. Ever since the recent depression it has occupied the minds of economists, statesmen and the trading class in general. For India, the predominantly agricultural country, the problem has become grave and serious. The cry of the teeming millions subsisting on bare minimum is to be heard and the Government are busy devoting thought and attention, and devising plans for their amelioration.

The bankruptcy of Indian agriculture, so far as its repaying capacity is concerned, has become an ascertained fact. Nothing but a ridiculously meagre income can be expected from a bankrupt occupation. The plight of the misery is that the long chain of middlemen connecting the producer with the consumer, makes it possible for the intermediaries to intercept a huge portion of the peasant's income. The hoax that is played upon the poor, ignorant and illiterate agriculturist in the grain market by his superiors—the traders as a class—who, by virtue of their strong financial position, experience and business knowledge always make the balance strike in their favour, is very well known. And when the 'Wheat Marketing Survey' concludes that allowing for incidental charges and margin of intermediaries and other expenses, in some cases at present the agriculturist gets Re. 0-9-3 out of each rupee paid by the consumer, we naturally conclude that there is gross inefficiency in the Indian Agricultural Market, that a few are gaining at the expense of many others and that efforts should be made to check this evil. In their craze for imitating whatever new and charming, many a man has suggested regulation of prices for agricultural produce. Their assertion is that the adoption of such a course would bring India on a plane parallel to the western one, and the complex problem confronting the country today, would be solved miraculously. But the economist, before taking their assertion for granted, would enquire, 'Are other things equal?' They are not. India, the sub-continent of small and scattered holdings, of mixed and multiple crops and of the conservative people, is

on a sphere quite foreign to the agricultural countries of the west. Her problem is peculiar to herself and awaits solution on her own grounds.

Apart from administrative difficulties, regulation of agricultural prices is inadvisable for India on purely economic reasons. As Prof. Pigou would say, 'State interference designed to modify in any way the working of free competition is bound to injure the national dividend.' Free competition, in true economic sense, is non-existent in the Indian agricultural market; but whatever competition is, it is better than no competition at all. Competition gives both the sellers and buyers an equal chance of securing the best for themselves, and puts an end to an immediate dissatisfaction experienced under fixation of prices. And if the market is dominated by the trader, regulation of price is not the right remedy for it. It would have been of some use, had the trader been a monopolist. Far from being a monopolist, every trader or commission agent in the Indian agricultural market is always competing with another, and the lure of profit keeps investment intact. When by regulation price is cut down, value of marginal net product falls, the incentive to investment is reduced and the national dividend does not increase.

Fixation of price is advisable when due to certain emergency the supply is so much below the demand that the dealer's money profits leap over the resultant rise in price to a large degree. The example of such a case can be found in England during the Great War. Such regulation is only to last for the period of emergency. Regulation is also desirable when the supply is so much above the demand that the sellers do not even get their cost price. Various crop restriction schemes are cases in point. But such regulation is not possible in peace and normal times, because then it is not the consideration of emergency but of necessaries of the varied population, that is required. Government in normal times cannot decide what kind of produce is the most wanted, and even if it does, conditions might change before it implements its plans.

Regulation of supply and quality of the produce is a necessary concomitant of fixation of prices, for otherwise the fortunate and well-to-do would purchase for themselves in quantities greater than their needs, and leave the comparatively poor to their fate. Rationing of the produce into the different uses, as also the limitation of output thus become essential. In U.S.A. the limitation of harvest prices without resort to rationing resulted in everybody getting what he wanted in the earlier parts of the harvest year. Naturally, in the latter part of the year

people had to fall back on substitutes. Further, in the absence of price restrictions demand and supply are adjusted at a price which suits the buyers and sellers; but when prices are artificially controlled demand may exceed the supply, for the total demand with a reduction in price may increase very much. Or, if the prices are kept high, supply may outgrow the demand. Therefore regulation of output or fixation of quota becomes necessary. Both regulation of output and quality and rationing, in normal times, mean taking away of freedom of selection, production and consumption. It is likely to injure the economic welfare. By rationing, the self-arrangement of people's ration is thrown out of gear, the amount per head of each family is fixed and allowance for varying standards of living age, sex and occupation, etc., can only be introduced with difficulty. To arrive at the true standard of living of the 35 crores of people is not merely an uphill, but rather an impossible task. The proportion in which families of equal means use the different necessaries are very different. Regulation of price with these natural consequences, therefore, is liable to do more harm than good.

And, particularly in India, where a number of substitutes for superior grains exist the trouble is all the more aggravated. For example, if the price of wheat upon study of demand schedules is fixed comparatively higher than that for barley, a vast majority of people would switch from wheat to barley, meaning thereby that with regulation of prices they have been forced to resort to inferior grains. This is wholly unjustifiable on economic and ethical grounds. Further complications arise when either the producers fail to produce their quota to supply at the fixed price, or when the consumers fail to consume their fixed ration at the given price. The price for these reasons would have to be changed every now and then. This would mean not only administrative difficulty but also a huge waste.

Then again, prices of so many grains are not determined by the Indian supply alone. Our agricultural market is integrated with the International market, and world supply and demand and world-speculation have a direct bearing on our prices. And, therefore, to maintain a proper balance between home and foreign prices, the prices at home shall have to run in sympathy with world fluctuations. Evidently it means that the prices fixed one morning in India will have to be changed the very noon, should international interests require it. The structure of prices, naturally, would crumble at the slightest gale from the outside, and no amount of efforts at stopping it from shattering down would bring commensurate benefit.

The greatest of the difficulties to be encountered is presented by the absence of grading and standardization and lack of uniformity in quality of agricultural produce. For purposes of price-control it is necessary to define the article the price of which is to be regulated. With complexity of grains and mixed crops it is very difficult to make two men understand the same quality by the same name. One name covers a great variety of different qualities of a commodity. And even if the qualities are graded and classified, ignoring for the moment the costs involved, the fact, that the grades shall be numerous, leads to the conclusion that it would be impracticable to fix a just price for each grade. Then again, some localities have certain advantages in producing a commodity over another locality, and this fact calls for due regard of local variations. Rice in Bengal would be produced and hence sold at a cheaper price than in the C.P. To keep consideration of such broad differences is comparatively easier than when the differences are minute and small and occur in adjacent localities. For example, rice or cotton from two fields in the same region are likely to be produced at different costs; and if they are sold at one fixed price the immediate effect would be a comparative loss for one producer. The ultimate effect—namely, the abandonment of production by the losing tenant—would be an injury to the national dividend. Lastly, for some commodities usually no uniform price throughout the year is adapted to the conditions of their production and sale. One price for such articles throughout the year cannot be fair. Therefore, much forethought, caution and judgement are necessary before any scheme of fixation of agricultural prices is recommended.

Advocates of regulation of prices are sometimes misled by the control of sugarcane prices in India and point it out as an example in their support. They commit an error of reasoning. Sugarcane prices have been regulated in India, (i) when certain particular qualities of cane have been secured, so that no difficulty of grading or definition arises, (ii) when there is no substitute inland to compete with its price, (iii) when a tariff-wall is protecting the sugar industry against foreign invasion, so that no substitute or competitor from abroad can affect the cane price, and lastly (iv) when the strong position of the cane-buyers did not allow the cane growers to get even their cost of production. Control of cane-prices has been in the interest of the country and its welfare. Viewed in the light of above facilities sugarcane-price control is no argument for regulation of prices of other commodities which lack in such facilities.

It must be noted that regulation of prices in India may lead to importation of agricultural produce from abroad, should it become profitable for the outsiders to raid the Indian market. And with importation of commodities already existing in the country the supply shall win over the demand and prices shall have to be lowered. The stability or equilibrium which is sought to be maintained would become a dream.

Regulation of agricultural prices would have been feasible and an experiment worth making, had the State been the producer to a marked extent. It would have been easy, then, to regulate and control the output. The price would have settled down at its proper level automatically. With private and scattered business and small capital, regulation of price may direct investment into wrong channels, and cause an injury to the national welfare.

This brief train of arguments should make it for us to say, that the problem of agricultural prices in India cannot be solved by regulation of prices. The solution lies in the organisation of producers to secure for themselves the best the market can give. It is lack of organised marketing which is at the root of all evils. Organisation of marketing would be the first step towards organisation of agriculture. To it let us bend our energies.

REVIEWS OF BOOKS

"INTRODUCTION TO ECONOMICS," by Prof. Krishna Kumar Sharma, M.A., B.Com., Gautama Bros. & Co., Ltd., Cawnpore. Pages 571. Price Rs. 4-4-0.

Prof. Sharma has already to his credit three good books on the Indian Money Market, Currency and Finance and Public Finance and this new volume is specially meant for beginners in Economics. It covers the syllabus of the Intermediate classes in Arts and Commerce of Indian Universities and of the various Boards of Intermediate Education. In expounding the elements of economic theory, Indian conditions have been specifically kept in view. The author has tried to be thorough and exhaustive in the treatment of his subject and has attempted, at the same time, to adjust his exposition to the level of the understanding of the students for whom the book is mainly intended. It is, however, a matter for the serious consideration of educationists and teachers of Economics, in particular, whether such big volumes, covering the whole field of Economics and also Indian Economics, are not beyond the capacity of Intermediate students. It appears to us that an exhaustive list of contents and an index would have proved useful and that the questions appended to each chapter could well have been omitted. The propriety and the utility of devoting one of the earlier chapters solely to a list of definitions, may be doubted. All things considered, however, Prof. Sharma has produced a book of notable merit and his claim that apart from Intermediate students, it "will be found useful by businessmen and others who want to have a preliminary knowledge of Economics with particular reference to Indian conditions," may be readily conceded.

V. G. K.

AN INTRODUCTION TO MONEY, by W. A. L. Coulbourn, B.Sc. (Econ.), price six shillings, published by Longmans, 1938. Pp. 278.

This is one of the numerous books on money which have of late been published. Monetary theory seems to be growing out of traditional bounds at a rapid rate. This book is an honest, and to a very large extent, a successful attempt to acquaint the reader with up-to-date developments in that theory.

His treatment is sure to be helpful to the reader in intelligently understanding the complications of the present theory of money. Apart from chapters which give a lot of food for thought as regards pure theory, the inclusion of chapters on historical developments of institutions such as the bank of England, and of the ideas like the Banking and Currency Principles, and bringing these descriptions up to date is a very attractive feature of the book.

A treatment of such a controversial subject, however, is not easy. The author has not been able to disentangle himself sufficiently from

the jungle of confusing ideas the mushroom growth of which has recently so much concealed the basic truth in monetary theory. While rightly emphasising the necessity for definitions in the interest of clarity of thought (P. vii) he has an undeserved gibe at the late Prof. Cannan on page 4. He says:—" And some, like the late Professor Cannan, just refuse to define money at all, which saves a lot of trouble to those who are satisfied with hazy ideas." In the footnote on this he cites Cannan's Money, eighth edition, page 2. Now on this page Cannan has clearly said:—" . . . . money like nearly all words in common use, means different things in different contexts. In a context like this . . . it means the unit of account commonly used in purchases and sales and other commercial transactions." Let us see if our author has any other definition of money to offer which is clearer than this. He says:—" We define money as *the means of payment and valuation.* (Italics the author's.) He explains it further:—" on the one hand, money is the *concrete medium of exchange, the thing given from one person to another in payment*; and on the other hand; money is the ***abstract unit of account***, the mathematical apparatus used to express price." (P. 2.) (Italics mine). Let the reader judge for himself. And this taunt looks all the more odd when we find later that the author forgets his own emphasis on the necessity of clear definitions and says on page 29 that " dispute about the meaning of economic terms is a futile occupation."

Nor is the conclusion of the argument that " money is as money does " a happy one. He asks " what does money do? " and evasively remarks in reply " a question to which a multitude of answers can be given, involving many ambiguities and without achieving an exhaustive description of money's activities." What he ought to have done was to enquire if there was anything which money did, but which the other substitutes for money could not do. If that was done it would have been discovered that money measures values by serving as popular unit of account and this could not be done at all by any substitute for it in itself. Before an exchange transaction is completed you require a rod for measuring and comparing values. That rod may be made of gold or it may be only imaginary—of the same nature with which the intelligence of candidates for an examination is judged by awarding them marks. The substance of which this rod is made does not matter. It is the work it does which distinguishes it from other instruments. The value of cheques and other instruments of credit is itself measured first by this spiritualised money of today. And when this value is found to be genuine, only then it is that their work of facilitating or completing the exchange transactions is treated as accomplished.

On page 23 Mr. Coulbourn says:—" In the system of barter, there is no interval of time." I wonder. Is it so very difficult to imagin a teacher of economics like myself agreeing, let us say, to deliver lectures on money today to a man in exchange for a promise that the other fellow would deliver eggs to the teacher or cut his hair next week or next month?

On the same page the author approvingly says:—" Money then, is the ideal store of value . . . ." He had previously said that money consisted of five different things, *viz.*, copper, silver, gold, paper and nothing (p. 7).

I wonder if money made of 'nothing' can be the ideal store of value." Now value in economics means 'value in exchange' which is nothing more than a ratio at which two things exchange for each other. Can such a ratio be stored? In fact the 'store of value' function of money is a relic, in the realm of thought, of those "barbaric times" when money used to be made of gold and silver as contrasted with the money of our civilised times which consists of book-transfers and book-entries, based on confidence which the author calls "nothing." He does not discern this although he approves this tendency of spiritualising money and thinks that in future cheques will replace the notes still more (p. 266).

If money then, is not the store of value, can it serve as "the best medium wherein to store . . . savings?" The author treats "saving and hoarding" as synonyms. Keynes on the other hand for whom Mr. Coulbourn has an unlimited admiration treats "savings" as equal to "investment." But apart from this difference as regards the meaning of terms, can money made of "nothing" hoard or serve as "the store of something." Here again, the fact of the matter is that saving of a community is embodied in "capital goods." Only command over these is represented by money—whether in the form of coined cash or notes or any substitutes for these such as bank deposits, which are also popularly, though not rightly called 'money.' But popular language is not always scientifically correct.

In the discussion of quantity theory of money again the author is too old-fashioned and discusses the "velocity of circulation" as something different from demand for money. Thus instead of saying that value of money, like that of anything else, depends on supply and demand, he says "the value of money depends upon its quantity and its velocity of circulation" and that this idea "is known as the quantity theory of money." This is a weak attempt to rehabilitate the quantity theory. The classical form of this theory never mentions velocity of circulation which is treated as an addition to or subtraction from the quantity itself. The classical form simply states that the value of money varies exactly in inverse proportion to its quantity. This is said to be so because the elasticity of demand for money is supposed to be unity. Our author also admits that elasticity of demand for money is unity (p. 80). But this he treats as a "static idea" and "this only happens in the long run." But then again "long before the final effects . . . . have worked themselves out, other short-run effects have dwarfed the former into insignificance" (p. 81). So that in the short-run the elasticity of demand for money is not unity and the long-run effects need not be considered as they are always dwarfed by other short-run effects into insignificance. Well then what is the use of such a theory and why formulate it in case of money alone? Certain hypothetical statements can always be made if certain impossible things are assumed to be true. We can always say what will happen if certain conditions are fulfilled—*e.g.*, the value of wheat will go up if the wheat crop of a certain big country is suddenly destroyed by pest or fire or if the sun loses its heat and becomes like moon and so on and so forth.

Having explained velocity of circulation the author mentions Prof. Cannan's idea of the demand for money and supports it, *viz.*, demand

for money is a "demand for money to hold." It does not occur to the author that larger the stocks of money people keep with themselves on the average, or the longer a coin is kept in such holdings, the less rapidly it circulates and vice versa. So that velocity of circulation is nothing but a reciprocal of demand for money. And as we do not speak of velocity of circulation of any goods but speak of demand for them instead, the sooner we simplify the theory of money in that respect by dropping to discuss velocity of circulation of money the better for all of us and for the world.

Looked at from this angle, nobody has any difficulty in seeing that "the demand for money is not always the same." The author mentions only one very familiar cause of the variations in the demand for money, *viz.*, seasonal changes. But what about the change in demand for money which he mentions while speaking of velocity of circulation, *viz.*, a substitution of a longer or shorter period of, say, paying of wages for the period which may be in vogue. And again what about the change in demand for money caused by developments such as amalgamation of small firms which obviates the necessity of keeping small holdings, which all of them used to keep, and similarly spliting of large firms in several small ones which necessitates keeping of small holdings by each of them separately. And what about the change in demand for money by circumstances like the changes in the size of population or the increase of commerce as a result of opening up large areas by quick means of transport, or by removal of other trade barriers, or by inventions like the cold storage, etc., which increase the number of commodities in the arena of international trade? And what about the change in the demand for money caused by the prospect of peace or war, blockade or invasion? And lastly what about the effect of the policy of the inflation, deflation and reflation, etc., on the demand for money. In this last case can anybody say that it would be uniform in all places and under all circumstances? Has the psychology of the people nothing to do with it? And does the psychology of people remain constant? In view of all these circumstances can we ever say that demand for money is ever likely to be constant or its elasticity is unity? or can it be made so for any country or for the whole world at any time or for all times to come?

"In writing of monetary theory" the author's "aim has been to expound in an introductory and elementary manner the ideas of Mr. J. M. Keynes and of those in substantial agreement with him."

After paying this tribute to that Monetary Oracle of Cambridge the author quietly advances opinions which contradict in sufficient degree those expressed by his great master. Mr. Keynes has become a nationalist in his economic ideas. He supports Protection, he shows admiration for the mercantalistic doctrines, and he advocates a nationalist monetary policy with the object of creating 'full employment' within the country. On the other hand our author wants to encourage the establishment of institutions like the B. I. S. with a view to obtain from them an "invaluable service in cultivating a world outlook . . . The further future, unless it holds the suicide of mankind, must contain the surrender of national sovereignty in matters affecting the general interest . . . " (P. 254.)

As regards the objective of the monetary policy, *viz.*, "Full employment" so strongly advocated by Keynes the author observes as follows:—

> "But perhaps we prefer an autarchic world, or one wherein trade between nations is reduced, at least, to a scanty necessary minimum, perhaps, even if we want more international trade, the fear of war, or the propaganda of politicians, will persuade us to live unto ourselves. In that case, we shall not bother about the foreign exchanges; full employment will be our criterion, and it must be remembered that it is a very excellent criterion to have as a guide to monetary policy. *Yet we must remember too, that it is not 'employment pure and simple that we seek; we want employment at a reasonable standard of life,* to take an extreme example, we could easily employ every one by stopping imports of food, but whether they could scratch from the soil enough to keep themselves alive is doubtful." (Pp. 168-69. Italics mine.)

In view of the author's international outlook and of his above remarks regarding the monetary policy aiming at full employment, it is surprising to see him writing in the same breath "And finally we . . . may advocate this policy" of full employment "upon very strong ethical grounds, and we may urge its virtue, too, upon grounds of expediency: . . . . the future will insist upon full employment. In the specious times to come, surely, the thought of permitting mass unemployment will seem almost as intolerable to the future generations as the thought now seems to us of letting people starve through lack of work: we reached the stage, a decade or two ago, of insisting on providing existence for the unemployed; our grand children or let us hope our children will insist upon providing the unemployed with what they need and would get in a properly managed world, namely, work." (Pp. 260-61.)

In this passage, however, the author in speaking of the unemployed getting the work in a properly managed world does not mention that they would get the work by means of the carrying out of a monetary policy. Involuntary unemployment is certainly an evil under certain circumstances and must be cured by all desirable means. But in the first place it is wrong to assume that involuntary unemployment is an evil under all circumstances. And secondly that monetary manipulation is a desirable means to relieve it. Just as there are some very studious fellows who go on reading books and wreck their health, and there are some public workers, like Mahatma Gandhi, who sometimes go on fulfilling their public engagements unmindful of their health and other interests in life and just as these people have to be *forced* to rest for a while so that their families and the nation may not suffer a greater disaster than the absence of such people from their present work for a few days, similarly the workers sometimes overexhaust themselves, and some amount of unemployment has to be forced upon them. If there is no well regulated system for this, then nature will do this in the form of illness, etc. Here some one will say, yes but why not give the workers paid holidays instead of forcing unemployment

upon them. Agreed. But the question still remains how far to allow the workers to work. Do they know their own interest? Perhaps under Trade Unions they do. Yet every worker tries to secure as much work for himself as possible for fear of unemployment up to an undesirable extent. The result is that a scramble is created for the existing work instead of arranging its fair distribution among all workers and also trying to increase the total amount of useful work. The result is that while some get overtime allowances others are unemployed. The length of the working day is capable of being considerably reduced.

Then monetary manipulation with the object of giving full employment is certainly not a desirable means for the end in view. Unemployment is sometimes forced upon people by circumstances such as heavy rains preventing field workers from cultivating the ground, etc. All such contingencies cannot be provided for by monetary policy. This is recognised by monetary nationalists. But this recognition does not go far enough. Unemployment is very often due to unequal technological advance in different countries. To provide against that by means of nationalist monetary policy is to put a discount on invention and consequently on world's progress. This is bound to result in economic isolation of countries and would amount to giving employment to every one by means of scratching the soil with human nails rather than with the ploughs. All of them will certainly get as much work as to keep themselves employed to the last minute of their lives. But whether they will get enough food to postpone that last minute of their lives sufficiently is more than doubtful.

On the whole the author is quite successful in explaining the theory of money in an easy manner. The book ought to prove useful for cultivating a taste for grasping the essentials of the ever-growing complexity of the monetary theory.

I. M. KAPOOR.

COMMERCIAL RELATIONS BETWEEN INDIA AND JAPAN, by C. N. Vakil and D. M. Maluste. Publishers: Longmans Green & Co., Ltd., pp. 210.

This publication is to be welcomed as a clear exposition of the commercial relations between India and Japan. The authors have discussed in detail the economic organisation of Japan, and have indicated in a clear manner how trade, industries and transport came to be developed in Japan during the last few years.

Analysing the causes responsible for the remarkable development of Japan, the authors correctly observe that they are:—Social solidarity of the people, (2) wonderful cohesion and co-operation of all interests for the general welfare, (3) the national policy of the Government, and (4) the three great wars which occurred after Japan had entered her modern industrial career and which greatly accelerated pace of her economic development.

In another chapter, the authors have described the trade in cotton and cotton piecegoods, and have referred to exports from India to Japan and imports from Japan to India. A chapter has also

been devoted to the review and the tendencies of the trade in Japan. An interesting chapter in the book is that on Japanese competition.

The authors ascribe the success of the Japanese to the depreciation of the Yen, higher efficiency of labour forces as compared with India and several other countries, greater literacy in labour, employment of double shifts and harmonious relations between capital and labour which has made possible many technical improvements in the organisation of the Japanese industries, which paved the way to cheaper production. What a contrast this is to India where the interest of labour and capital almost appear to be antagonistic, and the industrial relations are very much strained! It is remarkable that nearly 80% of the labour of Japanese cotton factories consist of young peasant girls who are compelled to seek employment with a view to add to the scanty resources of their parents. Generally, these girls leave the factories as soon as they have accumulated the necessary amount of money for their marriage. This, however, causes a large turnover in the labour.

The authors observe, however, that the predominance of female labour and the large turnover have, however, helped the Japanese industrials in other directions, as in addition to other factors, they have prevented the development of a strong Trade Union Movement and thereby provided them with a more or less subservient labour supply.

In regard to the wages, the authors have explained that the wages are low, but it should not be forgotten that the cost of living is also low, and in spite of low wages, the working class family is able to effect a small saving. Indian labour leaders should give their attention to the question of improving the efficiency of the Indian labour force, as ultimately, the possibility of India competing successfully with Japanese manufactures hinges upon the efficiency of labour as one of essential conditions of production.

In view of the importance of Japan in our import and export trade, a study of this subject, as is contained in this excellent publication, is of considerable value, and would be useful to all concerned in the development of our commercial relations with Japan on appropriate lines from time to time.

M. P. Gandhi.

Statistical Year Book of the League of Nations, 1937-38, Geneva, 1938. Pp. 336.

The publication under review contains the most important statistics of the world on such heads as population, labour, production, trade, transport and finance. New material is given in the present volume in most of the sections and some of the tables have been recast or enlarged, e.g., population by age and sex groups, specific mortality rates by age and by sex, fertility and reproduction, soya beans, salt, manganese, index numbers of industrial production, money market rates, etc. Statistics relating to Fine Gold Contents of Currencies, Expectation of Life, Production and Uses of Alcohol, Stocks of Primary Commodities and World Index of Stocks are new features of the present issue.

The publication is an extremely useful one to a student of economics, a businessman, an industrialist, a banker, a politician and a statesman.

We find that the production of foodstuffs and raw materials, according the League Index, has increased by nearly 6 per cent. in 1937, and is 16 per cent. higher than it was ten years ago. State expenditure and public debt have increased. Gold production has doubled in the last ten years, and shows a record, as do silver, several other metals and petrol. The volume of air traffic has increased four times between 1931 and 1936 and reached a record in 1937. India has approximately 11 crore more men than women. The density of her population is maximum between the years 5 and 15. The expectation of life at birth is highest in England and Wales for females (64·39) and in Denmark for males (62·0). It is interesting to note that largest number of babies are born to mothers between the ages 20 to 24 or 25 to 29, in all the countries of the world (figures for India are not given), while Japan and Spain have a brilliant record of large number of births among women of over 50 years.

J. K. MEHTA.

CONFESSIONS OF AN ECONOMIC HERETIC, by J. A. Hobson. George Allen and Unwin, 1938. Pp. 217. Price 5s.

In recent works on economics the difference between the classical conservatives and the modern radicals has come into some prominence. Prof. Keynes regarding himself as an up-to-date modernist has called Pigou a classical economist. And now Hobson declares himself, on the cover of his new book, a heretic. We are thus made to feel that in the 38th year of this 20th century we have among the topmost economists of England two distinct classes of writers, the classical or the conservative and the radical or the heretics.

It has become almost a fashion to find fundamental differences where in reality there are none. Where lies the real difference between Pigou and Keynes? What are the differences that mark off the modern theories from the classical? Is Mr. Robertson of Cambridge or Dr. Hayek of the London School a classical economist or not? The difference between one school of writers and another is more often than not a mere difference of emphasis. A dispassionate consideration of all the assumptions and conditions on which a problem rests imparts to one's analysis and treatment the odour of orthodoxy and sober conservatism. Overemphasis, on the other hand, or even misplaced emphasis on this point or that, and often a judicious avoidance of the expression of balanced views marks out one as a radical or a heretic.

That this is so is obvious from the fact that it is hard to find radical differences between economists on points of fundamental importance. Read Pigou and you will find that you are perhaps a classical economist. Read Hobson and you feel that you are an economic heretic. You could not certainly be both if there was a real difference between the two schools they represent.

Yet Hobson has a style and strain of his own. Though not differing in substance he differs from Pigou in his emphasis on human as against the materialistic economic values. And he certainly differs

in this respect much more from some other writers than from Pigou. I do not know whether I am an orthodox economist or an economic heretic, but I am in sympathy with most of the sentiments that Mr. Hobson has expressed in his last two publications.

The book under review consists of sixteen chapters with an appendix. A careful reading of these chapters will indicate to one the circumstances and the manner in which his comparatively old-fashioned views on economics gradually developed into their present from involving a wide departure from the mid-Victorian political economy. "I have taken the title of heretic," the Foreword says, "not in the spirit of bravado, but because it strictly applies to the several processes of thought which have come to debar me from accepting the assumptions regarding the nature of such terms as value, cost, utility as are still fixed in the orthodox economics of our time."

The concluding chapter of the book entitled A Summary of Humanist Economics is perhaps the most valuable and interesting of all the chapters. In it we find some of his recent contributions to Humanised economics restated in a more readable form. One may not agree with him on all the points in the shape in which they are presented here but one cannot help feeling that Mr. Hobson stands on strong and solid grounds when he advocates a more humanistic approach to the study of a science that is apt to become over-materialistic in its outlook. I cannnot help quoting here some of the passages from the book which are rich in thought and wisdom:

"But there are other issues which have occupied my long attention because they seem vital to a humanist theory and practice of economic life. The term cost and utility, which I provisionally adopted from ordinary business usage in order to present the conception of a balanced relation between production and consumption, demand closer investigation. For they have suffered a subtle vitiation, owing to that domination of the monetary measure which has been so hastily adopted by economic scientists as an instrument for converting economics into an exact science. For this purpose exact measurements are essential and the elimination of qualitative differences by conversion into quantitative differences . . . Cost, utility and value must find their ultimate expression in terms of desirable human life . . . The business man is right from his standpoint in measuring economic advance by reduced amount of costs and increase of amount of utilities, disregarding the human significance of both terms. But the economist, unless he accepts the post of intellectual servant of capitalism, has no right to adopt this scale of values and method of valuation. His rightful role is that of assessing cost and utility, production and consumption, supply and demand, in terms of their contribution towards a desirable human life or a desirable society. Economic processes, thus regarded, constitute a fine art, and no science can reduce a fine art to a quantitative analysis."

"There is, moreover, a further issue which I have purposely kept in the background. Are we to take the existing estimate of the desirable and undesirable which each person holds, or some higher estimate of what is good for them, what they ought to and would desire if they had a more intelligent view of their real interests?"

These two quotations will give the reader some idea of the magnitude and importance of the problems that are discussed in the last

chapter of the book. Mr. Hobson's "Confession" is a book that deserves as careful a reading as anything else that comes from the author of Wealth and Life.

J. K. MEHTA.

THE NATURE OF THE GROWTH OF POPULATION, by G. Raghava Rao, M.A. Reprinted from the Journal of the Bombay University, 1938. Rs. 1-8-0, pp. 38. Published by the Author, 6/166, Nizampet, Masulipatam.

This little brochure, which studies the growth of population in the British Districts of the Bombay Presidency, is a very brilliant attempt to make the best of the available statistics of births and deaths in the Presidency, by applying to them some of the modern demographic methods. The result is an original study, one of the very few of its kind written by Indian writers.

Some of the more important conclusions of the author are as follows: (1) Though Bombay's crude birth rate in 1931 is lower than the crude birth rate in the Ukraine in 1926-27, its general fertility rate is higher than that of the Ukraine. (2) The age compositions of the married females of reproductive age in the Presidency is more favourable than that of the Ukraine for a high general fertility rate. Bombay's specific fertility rates seem to be higher than those of the Ukraine. (3) Contraception is one of the important causes of the low general fertility rate in Bombay. (4) The relation between high rate of infant mortality and high general fertility is less than the relation between the former and illiteracy among females and urbanisation. (5) The growth of population (in Bombay) in the near future will probably be more rapid than in the past.

The poverty of Indian vital statistics forbids either a definite proof or disproof of some of the general conclusions of the author; it will be more convenient, therefore, to nibble at some of his arguments. On p. 130, comparing the birth rates and general fertility rates of Bombay and the Ukraine, the author thinks that the fact that the Bombay birth rate (36) is lower than the Ukrainian birth rate (41·2), while the former's general fertility rate (214) is higher than the latter's (156), is to be ascribed to the different methods of calculating general fertility rates (in Bombay only married females of the reproductive age are taken, while in the Ukraine all females of the reproductive age are taken). I do not think this is a sufficient explanation. In the first place, the Bombay age groups begin with 15 and end with 40, while those of the Ukraine fall within 15—50 for this purpose. This means that due weightage is not given in Bombay figures to the less fertile years below 15 and above, say up to 13 (in view of the fact that Indian fertility begins earlier). Secondly, there is a large number of children in the age-composition of the Indian population which reduces our crude birth rate considerably. On pp. 130-31, Dr. Pearl's thesis relating to correlation between density and reproduction is quite properly criticised; the low general fertility rate of Bombay City, however, can be ascribed partly to the fact that women of the poor classes (though not of the middle class) go to their native places for delivery. The fact

that registration of births takes place in a particular area has a lot to do with this is also borne out by the very low general fertility of Bombay's suburbs, from where mothers go to Bombay City hospitals and elsewhere for delivery.

The fertility rates of the Census Commissioner (1931), quoted on p. 132 have little statistical validity, as the series are very inharmonious. The application of the Ukraine specific fertility rates to the Indian population (pp. 133-34) is a very risky affair, as has been shown by me in a recent articles in the *Sankhyā*. The reproductive period differs; the presence of widows in India complicates computation of fertility; and marriage also is a universal affair in India. On the other hand, the author's examinations of the inter-relation between death rates and birth rates (pp. 135—37) is very interesting, and his general conclusion that "general death rates affect birth rates because the former include the death rates of married females and married males" is, I think, valid.

The author's examination of mortality is much more able than that of fertility. However, there will be much food for controversy in regard to his conclusion that "there is no close relation between the high fertility rate and high infant mortality." Professor Gini's theory that fertility plays a small part in infant mortality is not wholly applicable to India. In India, where economic standards are so low, both pre-natal and post-natal care of mother and child are so deficient, and nutrition so poor, frequent and repeated births draw upon the sap and life-blood of mothers and results in the exhaustion of the mothers. It is impossible therefore to expect vitality and resistance to infantile diseases in the children. In Europe the case is different in all these respects. The Table on p. 144 itself may show that (in Sind and Konkan) there is a close correlation between fertility and infant mortality. The Table on p. 145 seems to suffer from the fallacy of "concealed classification," and I think if the common factors are eliminated (and infant mortality is divided by the general death rate), we may get a high coefficient of correlation between fertility and infant mortality. Then, the Table on p. 146 does show that there is a close relation between infant and general mortality, but that is due not only to the operation of a common cause (say famines, epidemics) but, to a greater extent, to the preponderance of infantile deaths in general mortality also.

The above criticisms are only intended to apply to some doubtful places in the book. For the rest, there is no doubt this little book is an eminent production in Indian demography. I only hope it will be possible for the writer to continue his studies in this line more extensively in the future and fill an important gap in our population studies which are often prone to be unenterprising and hand-to-mouth in their scope.

B. P. ADARKAR.

"MARKETING OF RAW COTTON IN INDIA," by M. L. Dantwala, M.A. Longmans Green & Co., Ltd. Rs. 5.

The book is the first systematic attempt to study an important raw produce of India from the Farm to the Exchange. Cotton is the most important commercial crop in the country and has a highly developed organized market in Bombay, which is considered by some to be as broad a market as regards Futures Trading as in New York or even broader.

Mr. Dantwala begins by examining India's place in the cotton world and then goes on to the Farm, where cotton is sold in the interior. In discussing the problems of marketing in the interior, Mr. Dantwala shows a rare grasp of details and of business methods. What is welcome in his treatment of the subject is the absence of preconceived notions and prejudices and the absence of any dogmatic conclusion. In discussing marketing practices in the interior and the place of middlemen there, the author concludes: "But for the eternal hope of a favourable turn of market prices, so seldom realised, the whole class of middlemen would be automatically swept off. In short, they live more on hope, than on profits." The author brings the same sense of reality to bear upon the much vexed question of ginning pools. Here again, the author does not come to any preconceived conclusion, and his dispassionate study and scientific treatment of the subject are recommended for a serious study to the intending legislators on the subject in India.

In the very interesting chapter on the "Evolution of the Cotton Trade Technique", the author gives a very detailed exposition of the highly complicated technique evolved in the cotton trade, which is strongly recommended for a serious study to every one who wishes to understand the technique of marketing at Bombay. Herein he deals, among other things, with the growth of futures trading, its utility as a hedge, and its ultimate justification. This is an important chapter in the book, and his discussion of the subject clarifies many points on which there is confusion in some quarters of the trade itself. At the end of the chapter, the author favours the adoption of actual spinning differences to determine the premium or discount for the grades better or lower than the basic grades of the contract. It is doubtful whether any mechanical or "rule-of-thumb" method would work in actual practice. Spinning differences do not always determine market differences, nor differences in the value of the cotton, because other factors like Supply and Demand enter into the latter.

The author then traces the history and the growth of the cotton market in India at some length, which is useful and of interest to every student of the subject. In dealing with the organization of the working and the constitution of the East India Cotton Association, it is of interest to note that the author proposes a democratisation of the constitution, rather than the compartmental system by which different interests got special representation. The present constitution of the East India Cotton Association is much more democratic than the compartmental system criticised by the author.

When the author deals with the organization of the Cotton Futures Trade in Bombay, he enters into the arena of hot controversy. On such

vital questions as the revision of the Hedge Contracts, the justification and the continuance of the Teji Mandi operations etc., there is division of opinion in the trade itself and there can be no finality of opinion. But the dispassionate manner and the clarity of thought with which these questions are discussed in the book make the chapters dealing with these an important contribution on the subject.

On the question of the unitary control of the cotton trade, the author makes a distinction between the control of futures trading in general as such, and the control of the Exchanges on which trading is conducted. At present the East India Cotton Association Ltd., is the only recognized institution in Bombay which is given the right to regulate trade and it also lays down bye-laws and rules for trading on its Exchange. The author considers this position unsatisfactory, and thinks that this task of regulation of the Futures Trade by the trade is preposterous. Unfortunately the author only discusses the theoretical aspects and does not tell us what in actual practice has been the harm done by this. To the practical businessman that manner of control is best which gives the most satisfactory result in the end, apart from the theoretical aspects of the matter.

The author considers that the most satisfactory method would be for the legislators to lay down model bye-laws for the control of futures trading, as has been done in America, and leave the trade to organize their Exchanges as best as they can conforming to the Legislature's regulations. In such a case the author would not object to more than one Exchange being organized in Bombay, and cites the example of New Orleans and New York Exchanges operating in America. Here the author evidently makes a confusion, because New York and New Orleans are two separate markets far apart from each other with New Orleans having a separate spot market. Even the champions of unitary control do not object to Futures Trading being organized at Karachi which is a separate spot market having needs different from that of Bombay. What they do object to is more than one Exchange being established in one and the same place. Control over speculation, to be really effective, must rest with only one authority. Again, the ideal favoured by the author, of the legislators laying down the regulations for Futures Trading and the trade conducting its Exchange does not give as satisfactory results as the author seems to take for granted. As late as in 1935, at the instance of Senator Smith, a Committee was appointed by the New York Cotton Exchange to report on some of the vital questions relating to reforms in the Exchange Contracts. The report of this Committee was divided, as was the report of an earlier Committee in 1934 on many of the same questions. It is not impossible for Exchanges to be so organized in their details as to nullify the intentions of the regulations laid down by the Legislature. Here we cannot blame the author for not perceiving this point if we realize his handicap, that he has not had the benefit of practical experience of the trade.

In conclusion, the book, besides being the only and standard work on the subject, is perhaps the most important contribution that the Bombay University School of Economics has made to the commercial public in a practical manner. The freshness of outlook that the author has brought to bear on the subject would be welcomed by the commercial

public. In dealing with some of the most intricate subjects, on which there is considerable confusion of thought in many quarters of the trade itself, *e.g.*, the marketing in the upcountry, the ginning pools, the organization of the Futures Trading, the constitution of the Hedge Contracts, etc., the author deserves to be complimented for his clear grasp of the subject, the lucidity of his exposition, and the dispassionate and enlightened manner of his discussion of even highly controversial issues.

K. R. MARFATIA.

BANKING IN INDIA, by S. G. Panandikar, Second Edition, Longmans, 1937, pp. 365.

This is the second edition of Dr. Panandikar's Banking in India, which was first published in 1934.

The Central and Provincial Banking Enquiry Committees of 1929—31 in their Reports presented a huge mass of materials relating to the banking problems of India. Those Reports altogether covered 20,000 pages. Although all students of banking and currency, practical bankers, leaders of industry and trade and members of the Central and Provincial Legislatures would like to know as much as possible about the facts and problems of Indian banking, few can have the leisure or the patience to master the enormous mass of literature on the subject published by the Banking Enquiry Committees. Dr. Panandikar has, therefore, rendered a great service to all students of Indian banking problems by summarising within the compass of a medium-sized book and by presenting in an eminently readable form all the essential materials collected by those committees.

The book has been brought up to date by the inclusion of a chapter on the Reserve Bank of India and a section on those Provisions of the Indian Companies Amendment Act, 1936, which relate to banks and which may be regarded as the first banking law of India.

The book will be valuable to all those who wish to have a bird's-eye view of Indian banking and should prove a useful text-book for students of Indian banking and specially for Honours and Post-graduate students.

H. L. D.

"THE WORLD CRISIS," by Professors of the Graduate Institute of International Studies.—Longmans. Price 10/6 net.

The crisis through which the world is passing, is a phenomenon of such tremendous import and presents features of such a baffling nature that a proper appreciation of its causes and its course, has become extremely difficult and its problems appear to be almost insoluble. Generalisations and ready-made solutions are obviously out of place in this instance and the only fruitful method of approach lies in the historical and critical study of all the relevant circumstances. This work has been admirably accomplished by the Professors of the Graduate Institute of International Studies whose contributions to the elucidation

of the different aspects of the world crisis have been brought together in the volume under review. The chief merit of the book lies in the scientific analysis of the present state of international relations by a group of distinguished historians, economists and teachers of political science and international law and in the powerful search-light thrown by them upon the recent trend of world affairs. Reconstruction of international relations devoutly wished on all sides, can prove practicable and fruitful only if it is based on the thoroughgoing enquiries made by trained experts and on suggestions prompted by the results of such scientific investigations.

The comprehensive character of the work can be realised from the division of the enquiries into three main sections, *viz.*, political and historical, legal and economic. The one-sidedness of the solutions generally proposed for overcoming the crisis, arises from the fact that the approach is very often predominantly economic, and the political and legal aspects are either ignored or are made light of. Here we have all the aspects given due weight and studied together. In the economic section we have a contribution on the "disintegration of the International division of labour" by Ludwig *v.* Mises. Wilhem Ropke writes on "International Economics in a changing world." "Peaceful change and raw materials" is the theme of John B. Whitton, and "Monetary Internationalism" is discussed by Michael A. Heilperin. Each one of these contributions is worth careful study. At the end of the book we have an analytical table of contents, a list of the scientific publications of the Professors of the Institute of International Studies from the date of their appointment, a list of studies prepared by students at the Institute and a list of the publications of the Institute. The Graduate Institute of International Studies owes its initiation to the enlightened policy of the Gnevese Government and the financial assistance of the Rockfeller Foundation and of the Swiss Confederation, and its tenth anniversary could not have been more fittingly celebrated than by the publication of important papers written by its distinguished Professors. The executive committee and the directorate of the Institute deserve to be congratulated on the publication of the volume.

V. G. K.

MARKETING OF COTTON IN THE PUNJAB, by Lila Krishna Sehgal. Published by The Minerva Book-shop, Anarkali Street, Lahore. 1938. Pp. 145. Price Rs. 2-12-0.

This book was submitted to the Punjab University by Mr. Sehgal as a thesis for the M.A. degree in Economics. Mr. Sehgal has given us a remarkably lucid survey of the marketing of cotton in the Punjab. The survey covers the field of cotton marketing from the production of the cotton plant to the problem of cooperative marketing.

Mr. Sehgal's analysis of the various steps and his suggestions show a clear grasp of the subject. We recommend the survey to all interested in the subject.

B. G. B.

REPORT ON CURRENCY AND FINANCE FOR THE YEAR 1937-38. Pp. 57. Price Rs. 0-12-0.

When this report was issued by the Controller of Currency it used to be somewhat bulky. The present publication is almost one-quarter in bulk of its predecessor. But this reduction in bulk does not seem to have led to the omission of any of the important features that were usually discussed in the report of the Controller of Currency.

After taking a general review of trade and financial conditions in India and abroad, the report discusses the foreign trade of India, and has devoted a special paragraph to the effects of separation of Burma on the foreign Trade of India. In section three, the position of bullion, its exports and imports have been studied. In section four, exchange and remittance position has been examined. Section five deals with the financial position of the Government of India, while in section six, the Public Debt position of the provincial and central Governments have been examined. Section seven deals with Government balances and reserves. In section eight, monetary condition in India has been analysed while in section nine, circulation of currency notes and coins has been studied and in section ten, relevant data about Reserve Bank of India have been given.

This discussion is followed by 31 statistical statements in which all the relevant figures about the Indian currency, Public Debt, and the Reserve Bank of India are given. This is an admirable Government publication which provides necessary information in a handy form.

B. G. B.

PRICES OF CEREALS IN THE UNITED PROVINCES: HOW THEY ARE DETERMINED AT VARIOUS STAGES, by J. K. Pande. Published by Bureau of Statistics and Economic Research, U.P., Cawnpore. Pp. 133. Price Re. 1.

This monograph deals with various factors which determine the fixation of prices in the big central Mandies, the small intermediate Mandies and the villages. The relation between the different prices has been analysed. The effects of foreign as well as international influences on the determination of local prices have been traced, and the relative importance of speculation and other factors in this behalf has been brought out. The various marketing practices have been described and the Mandi charges to the cultivator and the *Beopari* have been analysed.

Mr. Jugal Kishore Pande has carried out his work with thoroughness and the result is an entirely reliable piece of research in a subject which has only recently received some attention from students of Economics.

We have had occasion to review a number of publications on markets and marketing organisations in different parts of India but none of them showed the same mastery of details and clearness of thought as characterise the work of Mr. Jugal Kishore Pande. We congratulate Mr. J. K. Pande and recommend his work to all students of Marketing in India.

B. G. B.

PUBLICATIONS NOS. 54, 55, 56 & 57 OF THE BOARD OF ECONOMIC INQUIRY, Punjab, Lahore.

No. 54 is an economic survey of Village Durrana Langana in the Multan District. The Survey was conducted by Mr. R. K. Seth and Mr. Faiz Illahi, M.A.

This survey is the second in the series which deals with a village in the south-west of the Punjab. This is a very exhaustive survey and as usual is full of interesting details so dear to the heart of the students of Rural Economics.

No. 55 Cost of Milk Production 1931-32 to 1934-35 at Lyallpur—by Mr. Kartar Singh and Lal Chand Sikka.

This report is in continuation of the Board's Publication No. 25, which dealt with the cost of milk production at the Lyallpur College Dairy in 1930-31. The genesis of the inquiry, as mentioned in the preface of that report, was "the unsatisfactory state of the milk supply in certain Punjab towns where the supply had been subjected to a systematic study." These investigations, held in Lahore and Lyallpur (the Board's Publications Nos. 22 and 28), had revealed that the supply was generally unequal to the demand and the production and marketing of milk left much to be desired. Owing to the difficulty of getting records from private producers the inquiry was confined to the dairy of the Punjab Agricultural College at Lyallpur. In the present report results for the three years, 1931-32 to 1934-35, are given, and at the same time records for three Gujars (milkmen) living in the Lyallpur town have been included.

B. G. B.

NO. 56. URBAN WORKING CLASS COST OF LIVING INDEX NUMBERS (1936) IN THE PUNJAB, by Ram Lal.

The results of the inquiry show clearly a number of things. There was a marked rise especially in the later months of the year in the prices of food stuffs, which raised the general cost of living for workers anywhere from 10 to 20 per cent. Wages in general presumably were stationary. Where the cost rose least, such as at Sialkot, Ludhiana and Rohtak, were also the areas where the cheaper food grains, *i.e.*, maize, bajra, jowar and masur, were in greater use. Clothing forms a higher percentage of total costs at Lahore and Multan, where the workers are better dressed because of social pressure. When the change in the house rent item took place in Ludhiana alone it would be interesting to discover.

We commend this study which is particularly timely and valuable, to employers of labour and to all those interested in the welfare of urban workers.

B. G. B.

No. 57. Sales of Land in South-West Punjab, 1931-32 to 1933-34, by Cyril P. K. Fazal, M.A.

Two main facts are brought out in the present inquiry, namely, that large owners sold to large owners and the small to small; and that probably nearly a quarter of all vendors became landless. Transactions among the small owners predominated; they accounted for 96 per cent. of the total number of sales examined and involved 86 per cent. of the total acreage sold. These small owners also got the best price when they sold in their own group, although, for the cultivated portion, the large owners got the highest price when selling to small owners.

Transactions among small agriculturist owners formed 70 per cent. of the total cases examined; the area involved was 59 per cent. of the total area transferred (cultivated area, 57 per cent.). The small non-agriculturists sold among themselves in 21 per cent. of the cases and the land transferred formed 22 per cent. of the total land sold (cultivated 26 per cent.).

Extra-tribal transactions, *i.e.*, between agriculturists and non-agriculturists, and extra-class transactions, *i.e.*, between large and small owners, formed a very small portion of the cases examined, about 4 per cent. in each case. The agriculturists, however, bought more from the non-agriculturists than they sold to them; and large owners obtained some land from small owners, but not much.

It would appear, therefore, from this inquiry that although big men do buy from small owners the transactions represent only a small fraction of all land transfers, and particularly so when only the notified agricultural tribes are taken into account.

B. G. B.

Preliminary Investigation into Measures of a National or International Character for Raising the Standard of Living.

This Memorandum by Mr. N. F. Hall, Director of the National Institute of Economic and Social Research, London, has been prepared in accordance with a resolution adopted by the Asembly in October, 1937, which invited the Economic and Financial Organisation to examine measures of a national or international character for raising the standard of living. There is obviously a very close relation between this enquiry and the one previously conducted by the League into the problem of Nutrition.

Mr. Hall suggests that the first step in any concerted international action designed to make possible further advances in human welfare should be the ascertainment, in a more precise form than has been done hitherto, and as a basis for the action of public opinion, of the extent to which existing standards of living fall short of the minimum desirable, in the light of modern knowledge, for the maintenance of health and physiological well-being.

Mr. Hall claims that Governments can do much to promote increased production and consumption by paying careful attention to

relative prices charged to consumers for the necessities of life; by wisely planned systems of taxation; by the application of appropriate social policies; and by facilitating the education of consumers in regard to the opportunities for improved consumption made possible by advances in science and productive technique.

An examination is made of the general character of measures likely to raise levels of production and consumption. The author emphasises the relationship between low standards of living and low productivity and shows the desirability of increasing the productive efficiency of agricultural countries (by improved local communications, marketing and credit facilities, and so on), and of securing in them a greater degree of local interchange of agricultural produce. At the same time, the industrial States should base their long-term agricultural policies on an increased local output of protective foods, obtaining more of their supplies of energy foods and animal foodstuffs from the agricultural countries. In this way, the latter would be assisted in improving their productive efficiency since the increased outlets abroad for their goods would provide them with the means of importing equipment. This demand for equipment goods—and later, as the productive capacity of the agricultural countries rises, for consumers' goods would in its turn benefit the external trade of the industrial countries.

Mr. Hall devotes a separate section of his Memorandum to the important problem of the economic development of peoples less advanced economically. An acceleration of measures to relieve poverty in such cases is, as he shows, a matter of real international concern—quite apart from any humanitarian considerations.

The formulation and application of politics designed to raise standards of living on the lines indicated would help to create conditions favourable to the removal of many of the existing obstacles to international trade and would facilitate the resumption on a broad scale of international co-operation in economic matters.

Although the Memorandum is only a preliminary investigation into a vast subject, it may well be fruitful in its ultimate results, particularly if it succeeds in "giving a clearer sense of direction to economic activities" and in "inducing and deepening a sense of conviction that technical progress in industry, agriculture and transport has created for the world as a whole unique opportunities for promoting human welfare by wisely-balanced increases in production and by well-planned measures of economic co-operation between nations."[1]

B. G. B.

WERNER SOMBART AND HIS TYPE OF ECONOMICS, by Dr. M. J. Plotnik. Eco Press, New York. 1937.

Werner Sombart is a German Economist of the first rank. Due, however, to linguistic difficulties the content of his works is not known to very many of the English-speaking people. This book makes that available to them in a small-sized volume of 132 pages.

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[1] P. 7.

The book first discusses the mind of the nineteenth century and the historical setting of the environment in Germany during the years of growth and maturity of Sombart with a view to showing their relationship to the views and principles of that Economist. Then it gives a short life-sketch of the man. Finally it deals with Sombartian Economics under the following heads:—Social Theory—Method—Scope—System—Theory and History.

The principal aim of Sombart is to understand actuality. The actual man is a product of the surrounding institutions which are not without the imprint of the past. To know actually, therefore, the totality of circumstances must needs be studied—the whole of the human experience out of which human behaviour can be interpreted. In his works the concept of the "Economic system" which he imbibed from Marx whose *Das Kapital* profoundly influenced him, figures prominently. That concept enabled him to get at that similarity of human behaviour and social conditions which are so essential for the purposes of formulating theory. He divides the economic epoch—the economic system of capitalism—into "early," "full" and "late" parts. These afford him the static conditions in which he can observe similarity in human behaviour, order it under homogeneous concepts and principles, relate those smaller wholes to their larger whole, and build up a theory." Such a theory is a really valid theory for it is for formulated "out of the actual moving forces, the spirit, the forms of economic organization and the technology" and not out of hypothetically assumed static conditions.

His own method of approach Sombart calls the *verstehende* or cultural scientific method. It is by this method only that actuality can be arrived at and not by the natural scientific or normative methods.

In the words of Dr. Plotnik "The Marxian approach, the culture scientific method and the entire material amassed by the historical school are ingeniously interwoven, with a previously unknown erudition, in all Sombart's works. Behind dead emperical material and data he discovers the living spirit of the time, the super-emperical and irrational, which are so largely responsible for economic human behaviour."

The most important notion that is come across in Sombart's writings is the notion of reconciliation. There being a season for the existence of everything. Everything is retained and united into a comprehensive system with the intention of explaining the "why" and "how." "There is no other economist" Dr. Plotnik tells us, "in the history of economic thought who has reconciled so harmoniously, past and present, individualism and universalism, nationalism and empiricism, theory and history, classical and historical economics, subjective and objective value theories, at the same time remaining scientist and artist."

Sombart's views on Marxism have been changing with the times. About the end of nineteenth century when *laissez-faire* capitalism had brought havoc in Germany so far as the condition of the lower classes was concerned, he was an ardent Marxian—upholder of socialism. In the War, about 1915, he was so much impressed by the Prussian Militarism that he sang the praises of the capitalistic entrepreneur.

After the War the misery rampant in Germany made him despise his newly discovered idol—the capitalist entrepreneur, the bourgeois, with his "wholly base instincts." In 1927 when the country had fully recuperated herself, he went back to Marx. In 1933 when the Nazi-regime was established he became the supporter of a self-sufficient economy (autarkie)—a Hitlerite Nazi. The book is a very creditable production. It clearly brings out the views and principles of Sombart. The author quotes profusely from his works with a view to making Sombart tell his own story. The translations of the original text are such as keep in tact the fine shades of thought of the original.

G. D. K.

A STATISTICAL SURVEY OF FOODGRAIN PRICES IN BIHAR AND ORISSA, 1861—1934, by Prof. S. R. Bose, M.A., B.Sc., Patna College, Patna. Published by the author; pp. 84. Price Rs. 1-8-0.

In this small book Prof. Bose has given Index Numbers of prices of foodgrains from 1861 to 1934 for the province of Bihar and Orissa and Patna City separately, has compared the changes in prices with those in wages and has also studied the seasonal differences in the prices of foodgrains.

The utility of an Index Number depends upon its representative character. No index number can be truly representative unless it is based on reliable data. The provincial Index Number of prices prepared by Prof. Bose, in spite of all the care that he has taken in preparing it, suffers from the serious defect that price quotations which he has taken from 'Prices and wages in India' and 'Statistical Abstract of British India' are not sufficiently reliable. Prof. Bose is not unaware of this fact. But he probably is one of those who believe that something is better than nothing and therefore he tried to gather the published material at one place and using correct statistical methods drew some important conclusions which cannot be accepted as wholly true unless they are corroborated from independent sources.

The provinces of Bihar and Orissa have a few well-established business firms of very long standing and some of them must have got records of prices and wages extending over a long period of time. When the information is collected from them by some scholar who has ample time and resources at his disposal and studied on the lines chalked out by Prof. Bose in this book, more reliable index numbers of prices would then be available.

The book deserves careful study.

DAYA SHANKAR DUBEY.

LIFE AND LABOUR IN A GUJERAT TALUKA, by J. B. Shukla, M.A., published by Longmans Green & Co., London, 1937, pp. 292.

This book gives the results of investigations carried on by Mr. Shukla with the object of studying the conditions of rural population in Olpad Taluka of Surat District during the years 1929—32. The work was undertaken under the guidance of Prof. C. N. Vakil and was carried on sound lines. Information about the whole Taluka was collected from the Census Report and office records of various departments of the Government.

Out of 116 villages in the Taluka only 14 villages were selected for intensive study and 40 to 50 per cent. families from each village (793 families in all) were selected for detailed study. The Taluka was divided into groups and from each group one village was selected because it was considered by the investigator to be a typical one. Then one or two other villages were also selected from each group because they had special peculiarities. The method of deliberate selection which seems to have been followed here is easily liable to be mis-used, and without doubting the correctness of the use of the method in the present investigation, we feel that if the method of *random sampling* as recommended by Bowby-Robertson Committee had been followed, the data obtained would perhaps have been more representative. We also feel that when certain villages had been selected for intensive study, the information should have been collected for *all* the families in those villages.

The following conclusions deserve our special attention:—

(*i*) 92 per cent. of the holdings in the selected villages are uneconomic.

(*ii*) The *hali* system is the backbone of the agricultural economy of the taluka. Under this system the *hali*, i.e., the agricultural labourer becomes the *de facto* slave of the person who lends him money.

(*iii*) The cultivators are extremely poor. 75 per cent. of their families are heavily indebted. The average debt per family is Rs. 763.

(*iv*) The expenditure on such item as intoxicants and tea has enormously increased. The people are now perhaps less well fed though they spend more on other items.

(*v*) Plough cattle are sufficient in number but breeding has fallen into inefficient hands and the scarcity of common grazing land is common in almost all the villages.

(*vi*) The following prices of recent years have greatly added to the difficulties of cultivators.

(*vii*) Only one crop is obtained and the need of subsidiary industry is keenly felt.

(*viii*) There is a lack of coordination between various agencies. official and non-official, responsible for the work of rural development.

We congratulate Mr. Shukla for writing this excellent book. It will undoubtedly be very useful to the student of Rural Economics and to all those who are interested in the problems of rural development.

DAYA SHANKAR DUBEY.

1. THE GOLD PROBLEM: A STUDY IN INTERNATIONAL FINANCE, by B. N. Adarkar, M.A. (Cantab.). Rs. 2.

2. THE OUTLOOK FOR GOLD, by Sir Charles Morgan-Webb. (George Allen & Unwin 4/6).

During the post-war period, economic literature on 'Gold Problem' has been, perhaps, far more extensive than on any other topic. Even a cursory perusal of it will show that the problem being highly complicated is open to attack from several sides and that its various aspects have assumed importance at various times.

At the conclusion of the war, almost all nations found themselves short of the yellow metal. It had been the only basis of their monetary systems which were consequently thrown out of gear. Another consequence of the war was a disastrous dislocation of international trade, exchange and finance. Immediately after 1918, therefore, every country was striving its utmost to restore its currency to the pre-war position and stabilise exchange so that a reasonable stability of international prices might be preserved. France restored gold standard with a depriciated currency and England went back to it on the pre-war parity. Yet economic prosperity was nowhere in sight. Everywhere there was 'Abnormal industrial depression and extensive unemployment.' Up to 1929, the problem was more national than international. In October 1929 came the great Wall Street crash which hurled down to unprecedented depths, international prices and trade; then, attention was directed to the price aspect of the problem. Meanwhile another tendency was manifesting itself. Indebtedness to foreign nations was growing to abnormal heights; the difficulties of foreign payment were accentuated by movements of "Hot Money" which were mostly due to loss of confidence in political stability. The last straws were added by the banking crises in Germany, Austria and Hungary, and the camel-back broke in September, 1931. The villain of the drama was again gold, and the international finance aspect loomed largest on the economic horizon at the time.

In the meantime, attempts were being made to discover remedies to cure the monetary disease. The Macmillan Committee submitted an exhausted report; the Ottawa Resolutions were passed and the World Economic Conference was held in London. President Roosevelt insisted that first domestic prices ought to be raised by individual or concerted action before any attempt was made to stabilise exchange. This practically meant currency manipulation, that is, the problem of adjusting gold-supply to monetary requirements.

It will thus be seen that the gold problem envisages so many considerations.

Of the two books under review, the first is by an author now well-known as a sound student of economics. The main title is too broad for the subject-matter of the book. The sub-title also, though more appropriate, does not fulfil the expectations it arouses. Yet it is a useful and timely publication. The first three chapters give a full statistical account of the 'Supply of Gold' and 'International Gold Movements.' The next chapter describes the various ways in which gold is absorbed. Exchange Equation Accounts set up in several countries

were intended primarily to influence their monetary and credit situation,—but they have resulted in sterilised accumulations of gold. The British Exchange Equalisation Account was started in 1932 with Treasury Bills worth only £150 millions; it has now reached the figure of £1,000 millions. In addition to this there are the gold purchases of the Bank of England. All these operations are lucidly described in Chapter IV. The final chapter is entitled 'The Future of Gold.' According to the author, confidence in the future of gold must be restored. To attain that goal, all nations, in particular the creditor nations, must act in concert, so as to effect efficient redistribution of gold; gold production must be restricted (all may not agree on this point); prices must be raised to the necessary level; and all barrier to international trade done away with.

On the whole, it is a highly useful work of reference.

The other book "The Outlook for Gold" is by Sir Charles Morgan-Webb. Like his other works, this is written in non-technical language so that the layman can understand what the gold problem means and wherein lies its solution. He also emphasises the urgent need of proper redistribution of gold, but the line of approach to this conclusion is different. The first three chapters furnish statistics of the supply of, demand for and de-hoarding of gold. Chapters IV exposes 'the imaginative unrealities of the classical economists in their distortion of the nature of the operation of money in the modern world.' According to them 'money is merely a symbol' and 'the theory of production and employment can be worked out as being based upon "Real" exchanges, money being introduced perfunctorily in a later chapter.' In other words, money is for them merely the medium of exchange; its function as the store of value is totally ignored by them. Sir Charles then goes on to show how its importance is now resuscitated bv Keynes and others; it is renamed 'Liquidity Preference.' Chapter V, the longest chapter in the book, tells us that liquidity preference has now become the deciding factor. Investment has lost its former prestige and has become, practically, a gambling operation. It is neither worse nor better than hoarding; it is an equally legitimate method of making provision for the future. Professor Robbins is quoted to indicate that 'hoarding can be superior to investment in the solution of some of the problems of modern industry.' The next three chapters are concerned with the prevailing conditions affecting the supply of gold and its redistribution. In the last chapter is offered a solution of the problem of 'The Outlook for Gold.' In 1931, there was a severe scarcity of gold. To meet it scarcity measures were adopted. Now that scarcity has ceased and a period of super-abundance has arrived, the solution. therefore, lies in removing the artificial restrictions which curtail the natural and insistent demand for the services of gold.

It is a clear and logical exposition of the view that the gold must be reinstated on its *gaddi*.

H. B. Bhide.

EINZIG—"FOREIGN BALANCES." (Macmillan & Co.) Pp. 186. Price 8s. 6d. net.

Though the movement of foreign balances has become a major factor in foreign exchange market, it is unfortunate that with the exception of the U. S. A. monetary authorities do not possess enough statistical matter to judge the situation. "Only slowly it has become clear, writes Mr. Einzig, that the expansion of the Bank of England note issue was due almost to hoarding demand from the Continent." The existence of huge stocks of notes constitutes a potential source of embarrassment; the notes may be repatriated suddenlv on a large scale, at an inopportune moment. The author does not indicate in his book as to how this tendency would be modified by the most arresting phenomenon of monetary history in recent months—the tendency to boarding in the form of gold.

Mr. Einzig recognizes the efficiency of the operations of Exchange Equalization Funds like the British Exchange Equalization Fund, in the matter of maintaining a certain amount of stability in rates of exchange. Whenever there was an outflow of gold, provoked by the withdrawal of foreign balances, "tight" money conditions did not develop in Britain, as the pressure was met out of the unpublished reserves of the Exchange Equalization Account. The contrast however between the conditions in Totalitarian states and democratic countries, in the matter of foreign balances, is too glaring to be missed by our author. He is forced to conclude that the general establishment of the exchange clearing system would be "almost the only means by which the amount of foreign balances would be ascertained with a reasonable degree of accuracy."

I need hardly develop the case for maintaining easy money conditions and certainty of exchange relationships in the modern world at present. I would therefore go further than Mr. Einzig. In recent months, the flight of Capital from France has almost upset her budgetary equilibrium. Any attempt to control the glow-worm-like-movements of international short term capital must include movements of a nominally investment character. To-day, foreign common stocks especially of the U. S. A. can be purchased as a hedge against changes in the values of European currencies. Any attempt to control them must include measures for registering, licencing, or taxing the ownership of these industrial securities or Government bonds within the stock market itself.

Any careful student will notice in Mr. Einzig's masterly survey of the various types of foreign balances, which are apt to be discussed indiscriminately, the different types of policies that are called for and that are being pursued by monetary authorities. In the case of the U. S. A., Mr. Einzig feels that though President Roosevelt is aware of the mischievous possibilities of "hot money"—a phrase that he himself coined when referring to these balances—he has not taken the necessary step of introducing the exchange clearing system. This book ought to find a place on the shelves of all students of modern monetary problems.

M. K. MUNISWAMI.

The Managing Editor acknowledges with thanks the undermentioned books sent to him for purposes of review:—

1. Indian Currency Problems in the Last Decade (1926—1936)—by J. C. Sinha. Published by University of Delhi. 1938. Pp. 166.

2. Industrial Enterprise in India—by Nabagopal Das. Published by Oxford University Press, Bombay. 1938. Pp. 174. Price Rs. 7.

3. Principles of General Geography—by H. L. Kaji. Published by Oxford University Press, Bombay. 1938. Pp. 355. Price Rs. 3-8-0.

4. Modern Banking—by R. S. Sayers. Published by Oxford University Press, Bombay. 1938. Pp. 316. Price 12s. 6d.

5. Elementary Economics—by S. G. Beri & G. B. Jathar. Published by Oxford University Press, Bombay. 1938. Pp. 227. Price Rs. 1-12-0.

6. Principles of Monetary Industrial Stability—by Hugh Munro. Published by Blackie & Sons, Glasgow. 1938. Pp. 130. Price 5s. net.

7. Problem of Industry in the East—by Harold Butler. Published by International Labour Office. New Delhi. 1938. Pp. 74. Price 1s. 6d.

8. Programme of Rural Development—by M. B. Chaturvedi. Pp. 43.

9. La Politika Finanziaria Britannica in India—by Monindra M. Moulik. Published by Nicola Zanichelli Editore, Bolouga (Roma), 1938. Pp. 238.

10. Principles of Political Science and Government (Second Edition)—by Biman Behari Mazumdar. Published by Mandal Brothers & Co. Calcutta. Pp. 510 plus VII.

11. Food Planning for Four Hundred Millions—by Radha Kamal Mukerji. Published by Macmillan & Co. London. 1938. Pp. 267. Price 7s. 6d. net.

12. A History of Economic Thought—by Erich Roll. Published by Faber and Faber, Ltd., London. 1938. Pp. 430. Price 12s. 6d.

13. Review of World Trade. 1937. Published by League of Nations. Geneva. 1938. Pp. 95.

14. Statistical Year Book of the League of Nations, 1937-38. 1938. Pp. 336.

15. Report on Exchange Control. Published by League of Nations. 1938. Pp. 53,

16. Monetary Review. Published by League of Nations. 1938. Pp. 165.

17. Draft Customs Nomenclature, Vols. I & II. Published by League of Nations. 1937. Pp. 135 & 317.

18. Commercial and Central Banks. Published by League of Nations. 1938. Pp. 214.

19. The Twentieth Century English-Hindi Dictionary—by Sukhsampattirai Bhandari. Price Rs. 17.

20. Distributive Cooperation in India—by V. B. Ramakrishna Aiyyar. 1938. Pp. 58.

21. Elements of Civics—by R. P. Patwardhan. Published by Oxford University Press, Bombay. 1938. Pp. 102. Price Rs. 1-4-0.

22. The Indian Sugar Tariff—by S. Ganapati Rao. 1938. Pp. 158. Price Rs. 1-8-0.

23. The Nature of the Growth of Population—by G. Raghava Rao. Price Rs. 1-8-0.

24. To-morrow's War—by Stephen Th. Possony. Published by Willion Hodge & Co. London. 1938. Pp. 255. Price 8s. 6d. net.

25. Farm Accounts of the Punjab, 1935-36—by Labh Singh and Ajib Singh. Published by Board of Economic Inquiry, Lahore. 1938. Pp. 294. Price Rs. 1-8-0.

26. Agricultural Statistics of the (British) Punjab—by Gulshan Rai. Published by Board of Economic Inquiry, Lahore. Price Re. 0-4-0.

27. Urban Working Class Cost of Living Index Numbers (1937) in the Punjab—by Ram Lal. Published by Board of Economic Inquiry, Lahore. 1938. Price Re. 0-8-0.

28. Family Budgets 1935-36 of the Six Tenant-Cultivators in the Lyallpur District—by Labh Singh and Ajib Singh. Published by the Board of Economic Inquiry, Lahore. 1938. Price Re. 0-6-0.

29. The State and Economic Life—by Anwar Iqbal Qureshi. Published by New Book Co., Bombay. 1938. Pp. 208. Price Rs. 5.

30. The Oilseed Trade of India—by J. C. Bahl. Published by New Book Co., Bombay. 1938. Pp. 314 plus XV. Price Rs. 20 or 30s.

INDIAN ECONOMIC CONFERENCE

The twenty-second annual Conference will be held at Nagpur under the auspices of the Nagpur University between the 29th and 31st December, 1938. The Conference will be opened by the Hon'ble Pandit Ravi Shankar Shukla, Prime Minister to the Government, Central Provinces. Mr. T. J. Kedar, B.A., LL.B., M.L.A., Vice-Chancellor, Nagpur University, has agreed to be the Chairman of the Reception Committee. Prof. Gyanchand of the Patna University will preside over the Conference.

The Executive Committee has decided 'Planned Industrialization in India' as the current topic for discussion at the Conference. Elaborate arrangements have been made for the convenience of visitors and delegates. Excursions to Wardha, Mahatmaji's Ashram, and to the housing and welfare centres of the Empress Mills, have been arranged.

Delegates attending the Conference are requested to write for particulars either to Dr. B. V. Narayanaswamy Naidu, Annamalai University, Annamalainagar P.O., or to Prof. A. C. Sen Gupta, M.A., I.E.S., Principal, Morris College, Nagpur.

B. V. Narayanaswamy,

Hony. Secretary.

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METHODS OF COAL CONSERVATION IN INDIA[1]

BY

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Coal Conservation has long ceased to be an academic fad—it is now a problem of supreme national necessity. No country can afford to play with its irreplaceable mineral resources. We cannot forget that economy is in itself a great income.

Conservation of natural resources—to be really useful—must be based on an unitary and organic policy, in which the different parts must be consistent with each other. A policy of piecemeal conservation which gives uneven emphasis on the different aspects of the question and which lacks harmony of purpose between the different parts is bound to be futile. The object of this paper is to discuss the different methods of coal conservation which should be adopted in India immediately so that the life of our coal resources may be maximised as much as possible.

The Enormous Wastage in Coal Production.

In any scheme of Conservation, the prevention of waste must naturally be the most important factor. Our present methods of production, consumption and distribution of coal involve enormous waste. Taking the methods of production first, our

1 Paper read before the Geological, Mining and Metallurgical Society of India—December 1937.

present mining methods are most crude and defective. About 50 per cent of the coal mined comes to the surface at all while the remaining 50 per cent goes to waste. It is left underground and is not mined at all. Very often, more coal is left behind than mined. The best coal is always extracted first leaving the lower-grade coals deeply buried and unexploited. With our present methods in mining, a good percentage of the coal is irrevocably irrecoverable. Even in America—with its more advanced mining methods—the waste in working bituminous coal averages 35 per cent of which 20 per cent is avoidable.[2] Enormous quantities are lost in the pillars which cannot be subsequently recovered except by the heavy cost involved in hydraulic packing. The amount of coal locked up in pillars in Jherria alone at the end of 1927 was estimated at 131 million tons.[3] In the Raniganj field it is 164 million tons. Taking the whole of India, it comes to the colossal amount of 398 million tons.[4] Of course, de-pillarisation—or robbing the pillars—will recover some part of it no doubt. During the last 20 years, de-pillarisation has greatly increased. The percentage of coal now obtained by de-pillarisation is greater than that taken from the galleries. But it can never recover all the coal left in the pillars so long as our present methods are allowed to continue. A large part of the waste is preventable. Thus our coal reserves are being depleted due to our wasteful methods of mining. A large part of coal—estimated at 421 million tons[5]—is locked up under the main lines and sidings of the E.I.R. and B.N.R. and it is protected for them by the common law rights of vertical and lateral support and on grounds of safety to public transport. Here again, only a part can be recovered by hydraulic packing but a large part would be lost for ever. Premature collapse, flooding of the underground mines, risks of spontaneous combustion through coal-dust and fire-damp have all caused enormous losses of our coal reserves. Inundations from the surface through fractures and faults in the surface soil or through close proximity of rivers—particularly when they are in flood—have caused substantial damage. The wastage caused by underground fires is serious enough and it ought to be controlled by better mining methods. Recently, there has been a serious extension of fires in our main coal-fields which looks ominous. As

[2] F. G. Tryon, Encyclopaedia of Social Sciences, Vol. IV, page 229.

[3] Records of the Geological Survey of India, Vol. LXII, Part 3.

[4] Report, Coal Mining Committee, 1937, page 72.

[5] Report, Coal Mining Committee, 1937, page 83.

depillarisation extends, losses through fires and collapses will also increase. It is therefore urgently necessary to plan out better methods of working which would help us to save our resources as much as possible.

Losses in Distribution and Consumption.

So much for the losses in production. Coming to the distributive side of the trade, a large amount of coal is wasted in preparing it for the market. There is some wastage due to exposure to the air.[6] The transport of coal over long distances by rail or ships—which burn enormous quantities of coal themselves—is wasteful. A much better plan would be to utilise the coal at the *locale* to generate electricity which can then be transmitted more economically over long distances. On the consumption side, there is enormous waste through lack of policy and lack of method. An ordinary steam-engine does not convert more than 15 per cent of the heat of combustion into useful work. The locomotives use less than 10 per cent. There are about 10,000 mills and factories in the country of which about half the number use coal for their power. In most of them, the steam boilers are placed in charge of illiterate boiler-men who are very largely ignorant of combustion engineering. A very large quantity of Indian coal is thus absolutely wasted which is preventable and which ought to be prevented.

Domestic consumption is even more wasteful and it badly needs improvement. A large part of the heat unit is lost in open use by radiation and in the coal-ash. A large part is lost in smoke and gas. We lose many valuable materials and by-products every time we burn coal at home.

Skilful Mining as a Condition of the Lease.

There are various ways of preventing wastes which must be rigorously enforced. Mining leases require that the lessee must work the mines in a skilful and workman-like manner failing which the leases may be cancelled. But this clause has been seldom enforced in practice. It is practically inoperative. Such conditions are useless where the landlords have no competent mining staff to inspect the mines at regular intervals. But landlords who have a direct financial interest in the economical working of the mines have never even attempted to enforce efficient methods of mining. They have never sought or engaged

6 Lippincott, Economic Resources and Industries of the World, p. 137.

expert advice to guide them in the matter or to look after their own interests in it. Had they spent money over it, it would have been the most profitable investment for them in their lands. But they kept quiet and slept over it. Private capitalists worked for maximum of profits at the minimum cost regardless of consequences. The robbery of the mines went on unceasingly while the landlords slept and the Government dozed. Very little has been done so far to enforce efficient working in the mines. A large number of them are still worked on crude and uneconomic lines leading to appreciable wastes. The series of disastrous mining accidents that happened recently at Bagdigi, Joktiabad, Loyabad, Adjai and Poidih have focussed attention on the dangers involved. They only prove that rules of satisfactory working are not properly observed in all the mines. The coal owner who cannot mine with safety and skill need not mine at all. It is high time that the Government firmly intervened in the matter. Rigid control by a statutory authority is urgently needed to protect the community against the folly and selfishness of ruthless uneconomic exploitation. Mining methods which involve serious avoidable wastes should be legally prohibited. The coal trade argues that only better prices will encourage better methods. The trade is passing through an acute depression for some years. It is impossible—they say—to introduce better methods at this stage. The industry must first be helped to stand on its legs before better methods can be undertaken. It is no use trying to coerce the industry into prosperity. An increase in the cost of coal mining—and therefore of coal—will cripple the coal industry—particularly now when it is passing through a crisis and is meeting every day increased competition from hydro-electric development and oil fuel. But this argument—on the part of the trade—is hardly fair. It is a mere eye-wash. It will deceive nobody. Even when the trade had a boom—with peak prices and high profits—even then there was no real effort at improvement. In fact, most of the mischief was done at a time when the industry was enjoying a boom.

Further, mining leases required that there should be no damage to the surface. In case of damages, compensation had to be paid. Hence, miners left more coal in the pillar to avoid collapse—and compensation—while the landlords thought that a steady rent income from the surface justified the losses in coal. As mining methods improved, bigger and even bigger pillars had to be left to support deeper workings.

Further, the pillar and stall method is less wasteful than the panel system of working. It enabled the isolation of fire areas.

The panel system is safer but less economical. It has increased the chances of avoidable waste.

Over-production and Maladjustment.

The over-production—and the consequent glut in the coal-market—must be removed by a policy of rationalisation. The unstable supply of labour in the coal industry always makes it peculiarly liable to over-production at particular times. Very often, there are too many workers who depend on the industry for an income. The ease with which a coal-mine can be exploited with a small capital always brings into the business a number of occasional producers—the "Wild-cat and the Snow-bird miners"—as they are called in the West—who swell output and help over-production, who can prosper only in a boom but who easily go to the wall when times are bad. A large number of small pits are worked by small engines with vertical boilers. They are quickly shut up when prices go low and are quickly reopened when the markets improve. This difficulty hampers the coal industry not merely in India but in other countries of the world as well. The productive capacity of the Indian mines increased from 23 million tons to 31 million tons in recent years. The industry is thus threatened with potential over-production to the extent of 8 million tons without any parallel increase in the demand—particularly when it had to meet the world economic depression on the one hand and the loss of overseas markets on the other. Either the industry must find new markets to utilise the surplus productive capacity of 8 million tons or it must reduce output. There is no virtue in waste. Unfortunately the industry could do neither the one nor the other. A large number of indifferent marginal coal-miners are hanging on the industry. They are a tax on the industry and a tax on the community. The question of railway collieries should be settled by some adjustment between the railways and the trade. Either the railways should close their collieries or the marginal coal-miners must go. Supply and demand must be adjusted and equated on an intelligent basis by a policy of rationalisation.

Scientific Research.

Organisation of fuel research is another important method of conservation. It will help us to utilise the large number of commercial by-products which are found hidden in coal and to find better and more economic use of coal itself, to reduce cost

per ton and to increase the wealth and prosperity of the country in various ways. It will also help us to improve the methods of mining and the system of safety. It will reduce risks of fire, accidents and flooding and thereby save large losses of our coal resources. If petrol can be successfully manufactured out of shaly coal, it will not only help the coal industry but it will also make India self-contained in oil. The Coal Mining Committee (1937) has recommended that a Coal Research Board should be set up under the statutory authority they have proposed. The Committee proposed that the cost should be met equally by Government and the Coal cess. In view of the great issues involved, the promotion of research should be financed entirely by the Government. This is legitimately a function of the state. It would be undesirable to burden the industry with further charges in view of the compulsory sand-stowing the committee has proposed.

Hydraulic Sand-Stowing.

Sand-stowing would be an excellent means of preventing waste. The coal industry is now largely dependent on depillarisation. It is now mining out more and more the large columns of coal which were so long left as supports for the roof. Depillarisation—it is said—is now necessary to maintain output. Depillarisation must naturally involve tremendous risks. The primary exploitation was so excessive that the danger of sudden collapses is now very great. Increased robbery of the pillars will greatly increase the dangers of accidents, collapses and fires, of loss of life and loss of coal. Sand-stowing will not only give support against premature collapse—it will also set free large resources of coal which can be utilised. Complete sand-stowing would increase the percentage of coal recovery from 50 to 90 or 95 per cent at the best.[7] It thus not only makes for the maximum of safety in the mines but also for the maximum of economy in mining. Packing the vacuum with an incombustible material like sand is essential both for safety and for conservation. Hydraulic packing or sand-stowing is urgently necessary in the interest of all the parties concerned. It is the only safe way to depillarisation. Sir Lewis Fermor, the late Director of Geological Survey in India, in his report published in 1935 held that the life of the Jherria and Raniganj fields could be almost doubled if sand-stowing methods were adopted.

[7] Report, Coal Mining Committee 1937, page 65.

Sand-stowing—to be useful and effective—must be compulsory. It is no use making it voluntary because in that case it will not be adopted at all. The coal owners have already raised objections that the scheme would be impracticable. It cannot be denied that there are serious difficulties in the way. Such difficulties may be broadly stated as follows:—

(*a*) The scheme would be very costly. The initial capital cost for installing sand-stowing machinery would be about Rs. 50,000. It will be an expensive affair in all those cases where the coal mine is not actually located on a river. The overwhelming number of collieries are located far away from the rivers.

(*b*) An increase in the cost of mining will inevitably lead to an increase in the price of coal by at least Re. 1 per ton. It will hit the consumers badly in these days of economic depression. A tax on coal is really a tax on industry and transport. It will dislocate India's coal trade on which her industrial prosperity depends. On the other hand, a rise in the price of coal is bound to enforce economies and to avoid waste which would not be bad at all in the interest of conservation.

(*c*) It is proposed to meet the cost by a cess on coal. But it would be unfair to put the whole charge on the industry alone. The cost should be met not merely by the coal industry but also by the iron and steel industry, the railways and the consumers—all of whom will benefit by conservation through sand-stowing. The railways will gain by it as it will ensure the safety of their communications, prevent accidents through subsidence, save them the cost of diversions and, lastly, give them more coal to carry. The best way to find the cost would be to divide it equally between the four partners in the business. The coal, iron and steel industries on the one hand and the railways on the other should be asked to meet one fourth of the cost each. The remaining one-fourth should be levied by a cess which will ultimately be paid by the consumer who will thus pay his share as well in the shape of increased prices. He will probably pay more as the other

three partners will try to recoup some part of their burden by increasing their charges.

(*d*) It is argued that any rise in the price of coal might easily mean the capture of the Indian market by the imported and subsidised coal from South Africa. The danger, no doubt, is there but one way to meet it would be a corresponding import duty on coal—although some part of it may again be shifted on to the consumer. Further, if the total cost is distributed as proposed in (*c*) above, the price of coal will not rise as much as it otherwise would do and therefore the risk of losing markets will be greatly reduced.

(*e*) Some mines do not need sand-stowing and yet they would be compelled to pay the cess. The smaller mines thus may have to shut up altogether if sand-stowing is made compulsory.

(*f*) The supply of sand may be inadequate to meet the needs of the whole industry. Can the Damodar, the Barakar and the Adjai rivers supply all the sand needed? The Burrows Committee (1937) found that the supply in these rivers would be more than adequate but their estimate is largely conjectural which may or may not be correct after all.

(*g*) The distribution and transport of sand from the rivers to all the coal-mines would be very costly and difficult. There are not wagons enough to transport the coal. Will the railways be able to provide sufficient wagons for the transport of sand? Aerial ropeways would however offer a more economical method of transporting sand to the distant coal-mines.

(*h*) The supply of water is also limited in most of the mines and this will make hydraulic packing more or less costly and difficult.

(*i*) The coal industry complains that sand-stowing will compel them to pay more in dead royalties for a larger number of years by the artificial increase in the life of the mines. The private capitalists —our coal lords—are afraid that they will get

no income on their investment. In view of the grave risks which sand-stowing seeks to prevent, this selfish argument reminds one of Nero fiddling when Rome burnt. With private capitalists, their dividends come first. The safety of the miners, the avoidance of waste, the needs of conservation and the future interests of the country—all these are petty matters to the industry and they do not come into the picture at all. It is this sort of naked, ruthless and brutal capitalism which is driving the world more and more into the arms of communism. The question of sand-stowing really boils down to the question of cost—*viz.*, whether it is or is not too expensive for general application in the industry. The Government is bound to look not merely to the safety of the miners but also to the future interests of the country. The coal industry must also look beyond the nose and realise that the future needs of the country are paramount, that safety is more important than shareholders, that conservation is more urgent than dividends, and that life is more precious than profits.

Use of Coking Coal.

Our supplies of good coking coal being limited it should be reserved only for our metallurgical industries. Good coking coal is essential for them. For work which can be carried on with lower-grade coal, it would be a criminal folly to use the coking coal. If it is possible to do with the second best, why waste the best? Why should railways use the best coking coal when they can easily do with lower-grade coals? They are merely wasting first-class coal when they use it for purposes of shunting and marshalling. The Government or the Railway Board cannot consistently shout for conservation in Calcutta while they quietly accept tenders for coking coal at Simla.

Further, our limited supply of coking coal is now largely used as ordinary steam boiler fuel in most of the industries where such use is neither essential nor desirable. Here is a great scope for economy and conservation which it would be folly to ignore. If the railways and mills will come down to inferior coals, it will not only economise and conserve our best coals but it will also provide a very good market for our poorer coals.

Further, the railways accept coals only up to one-inch size. This involves a large wastage in supplies meant for them. By adjusting the grates in the locomotives, they can take even smaller sizes. Thereby, they can save a large loss of good coking coal which is now used in the railways.

Small-Scale Mining.

Small mining—in small holdings—is another factor which causes waste. Under the mining regulations and under the terms of the mining leases, 50 feet of barrier coal must be left all round the boundary of each colliery. This leads to a large waste where too many small and independent mines work side by side. Compulsory consolidation of small mines is desirable. The opening of new mines—with less than, say, 1000 bighas area—should be prohibited by law. Export of coking coal may also be prohibited—though it is bound to affect the interest of the industry. It can be justified only on the ground of paramount national conservation.

Conclusion.

Salus populi Suprema lex. The welfare of the people is the highest law. These methods of conservation—if adopted—will go a great way in stabilising the future resources of India. It is a duty we owe not merely to ourselves but to posterity. We cannot—we dare not—sit blind-fold when a grave economic cataclysm threatens to overwhelm humanity at no distant date.

UNEMPLOYMENT IN INDIA[1]

BY

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The acuteness of the problem of unemployment in India is admitted on all hands. It is, however, a matter of some satisfaction to find that the attention of the Government of India as well as the various Local Governments and the public has been directed to this matter since the last three years. Various Local Governments have appointed Committees for going into this question of unemployment of the middle classes, the masses, and particularly of the educated classes, and of devising some measures to remedy the same. I do not propose here to deal in detail with the various measures that can be undertaken to solve the problem of unemployment, but wish to make a few suggestions for the consideration of those who are in a position to do something to relieve the situation. The present time is, I feel, very opportune for undertaking development of industries, which notwithstanding the observations of the present Finance Member, can really do a lot for relieving unemployment. It has been found that one of the most important causes of unemployment is the progressive economic deterioration due to the increased pressure of population on the soil and this could only be remedied by development of industries in this country which can find more work for the people. The policy of protection adopted by the State, even though halting, has certainly led to the development of several industries of the country, thereby vindicating the truth of the findings of the Fiscal Commission of 1921. The growth of industries like cotton, sugar, steel, paper, matches, etc., is a convincing proof, if proof were needed, of the wisdom of following the policy of adequate protection to industries, and has also surely justified the expectation of both the Government and the people by effectively checking the import of foreign goods which drove the village artisan from his hereditary occupation, and accentuated

[1] A paper submitted to the 21st session of the Indian Economic Conference held on 28th December, 1937, at Hyderabad (Deccan).

general unemployment and under-employment in rural areas. What is more, it has created employment for a large number of the population. The development of many subsidiary industries has also been one happy feature of the policy of protection, *e.g.*, hand-looms, gur making. India can thus legitimately take pride in the fact that though she cannot rank amongst the first-class industrial powers of the world, she has definitely made a mark in the industrial field in recent years, and has thus proved her industrial possibilities, if a carefully planned, scientific, and sympathetic industrial policy is pursued with sincerity and courage. The measure of success achieved by us so far should afford us greater incentive for making further industrial experiments suited to the genius and environment of India, with the ultimate aim of making India a self-contained economic unit, in the comity of nations.

It is a matter of great regret, however, that the attitude of the Government of India towards the development of Indian industries during the last two years, indicates a *volte face* on their part. There are serious apprehensions in the mind of the industrial community and the general public that under the guidance of the present free-trade minded Finance Member of the Government of India, who has yet to appreciate the real economic situation in this country, there is little possibility of State assistance being given to development of industries in any shape or form. Indeed, one would feel thankful if protection to existing industries would not be circumvented or checked in various ways, as is being done by imposition of heavy excise duties, *e.g.*, on sugar and steel, or prohibition of exports, *e.g.*, of sugar, as was recently done, in spite of adverse vote of the Assembly, and expressed wishes of the industry against such a step. The Hon'ble Finance Member professes to believe that the prosperity of India does not lie in industrialisation through protection, and that our prosperity lies in increasing our exports of raw materials. The holding of such a view can only be due either to prejudice or to complete ignorance, particularly when the people of the country who may justly claim to understand better, strongly believe in development of industries, big and small, as a sure method of relieving unemployment, and of improving the condition of the masses. In March 1935, when in connection with the Finance Bill, the question of the development of industries of the country was raised in the Indian Legislative Assembly, the Hon'ble Finance Member expressed his conviction that industrialisation as a cure for unemployment in general and middle-class unemployment in

particular was entirely wrong, and he took that opportunity, through his speech, to "debunk" that theory before it got too great a hold on men's minds. When such views are doggedly held by high officials of the Government, and when they continually refer to the burden of protection on the country, it would be useful and instructive to examine the case of some of the important industries and see whether their development has contributed to the wellbeing and welfare of the country as a whole. Take the sugar industry first. Any unbiased student of the sugar industry will come to the conclusion that the sugar industry has thoroughly vindicated the policy of protection and has enabled the industry to be self-supporting within a brief period of 5 years and has stopped the drain of about 15 crores of rupees. The internal price of sugar today is far lower than it was a quarter of a century ago, and what is more, in addition to making sugar cheaper to the consumer, the development of this industry has given opportunity for the investment of Indian capital reported to be shy, to the extent of 30 crores, has offered employment to about 2,500 graduate scientists, about 10,000 educated staff and about 2 lakhs skilled and unskilled labourers, not to say anything about 20 million cultivators of cane.[3] All this money is retained in the country and distributed amongst the various classes of the country. There is no doubt that as a result of the increased purchasing power of the cultivator, several other industries, rural and urban, have also been benefited.

The same is the case with the iron and steel industry, the paper industry, and the match manufacturing industry, and indeed of the cotton textile industry.[4] If the economic advancement of the country is to be achieved and if the problem of unemployment and of relieving pressure of population on the soil is to be properly tackled, it is essential to develop heavy industries, especially those relating to the manufacture of machinery, locomotives, steamships, automobiles and heavy chemicals, and to extend the development of cottage and small-scale industries by giving them assistance in various forms including tariff protection, marketing facilities, credit facilities, etc. The importance of development of cottage industries in India cannot be minimised inasmuch as they can absorb a large mass of population whose occupation is mainly agriculture. Agricultural operations in India extend only from 4 to 6 months

3 *Vide* 'The Indian Sugar Industry 1937 Annual,' by M. P. Gandhi.

4 *Vide* 'The Indian Cotton Textile Industry 1937 Annual,' by M. P. Gandhi.

and thus the masses of the country are undergoing an enforced period of idleness for a major portion of the year. The cottage industries of India, if they are developed properly, will give employment to the agriculturists and thus provide them with means of subsistence, and adequate patronage is given to them, we will be able to stop the process of irretrievably killing something so vital in the life of the nation, for these industries have been the age-long means of supplementary income to the people. It is a matter of gratification to find that the various Local Governments have included in their budgets some grants for development of small industries. It is hoped that in future larger amounts will be ear-marked for the small and cottage industries all over the country. The Government of India have set apart a small sum of Rs. 5 lakhs for assisting cottage industries, particularly hand-loom weaving. Amongst other subsidiary industries, mention may be made of industries like those of pottery, shoe-making, oil crushing, hosiery making, handspinning, and also of fruit canning, fruit preserving, poultry farming, dairy farming, sericulture, pisiculture, etc.

Educated young men can play an important part in the organisation and development of cottage industries. Several educated young men, if properly trained, can be absorbed in blanket-weaving, dyeing and bleaching, tanning, shoe-making, etc. What is needed is concentrated attention on the part of the various Local Governments and also of the Government of India. Let us hope that in appreciation of what India can achieve as a nation, the Government of the country will devise bold and well-planned schemes which would lead to progressive development of industries in the country, and usher in a period of prosperity for the people by reducing their dependence on agriculture, by creating new channels of employment for their labour and energy and by enabling them to produce a bulk of manufactured articles inside the country and thus preventing the drain of money outside the country. The present is also an opportune moment for embarking on such a programme as money is cheap, and it would be further helpful, if at this juncture, the Government would make a clear announcement indicating their faith and desire for fostering of industries, big and small, by giving the necessary encouragement, as in that event Indian industrialists would seize the opportunity of utilising the resources of the various provinces and establishing appropriate industries therein. Fortunately, India is not lacking in man-power and natural resources, and with a vigorous policy of the State for development of industries, much can be achieved before long to remedy

the vexed problem of unemployment and under-émployment of the educated class, and the masses.

By introducing reforms in the present educational methods on the lines suggested in the national educational programme initiated by Mahatma Gandhi, by imparting a technical bias to the modern system of education, by opening polytechnics as in western countries, by giving vocational training, the absence of which has made the educated classes unfit for productive work, and by diverting the attention of some of our educated people also to agriculture and village life, considerable help could be rendered to remedy the problem of unemployment. The Congress Governments in the various provinces should, I suggest, interest themselves immediately in this question, as it is undoubted that if they try and follow a vigorous policy calculated to develop the industries of the country, they can solve the problem of the unemployment of the educated classes, the middle classes and also of the masses to some extent in course of time. What is needed is a well-planned policy and requisite State-aid.

AGRICULTURAL MARKETING IN INDIA

BY

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Indian agriculture is in a state of bankruptcy. It does not pay its own way. It seems to liquidate itself by drawing upon community's capital. The peasant, the pivot of Government machinery, of social and economic activities, contributing the largest amount to the Indian Exchequer, leads a life of poverty and starvation. His income is limited not only by the circumstances under which he labours, and the quality and quantity of his produce, but also by the manner in which he disposes it of.

The cultivator is robbed of his freedom by the landlord and the moneylender, who multiply their profit at his expense. Their pressure to pay their respective dues, he cannot often meet but with the sale of his standing crops, at a price to be determined by his fair-weather friends. Being a labourer for subsistence, he cannot afford to provide himself with adequate storage facilities. Due to these reasons, or for fear of rainfall which makes the roads muddy and unsuitable for easy transport, he is compelled to offer his produce for sale just at the harvest time. This causes a glut in the market and the price obtained leaves little margin of profit. He is connected with the market through 'a horde of itinerant dealers, carriers and intermediaries,' who intercept a portion of his rightful profits. The market is dominated by the trader. The peasant is but an alien. 'He has no voice in the control of market arrangements, no say in the fixing of market dues, no representation on market Panchayats and little or no means of ascertaining outside prices.' The buying agents and local dealers fix among themselves the daily price, and sometimes the price ruling on some auspicious back date determines the market rate. Quotations of world markets hardly ever find entry into the ignorant and illiterate mind of the peasant.

En route to the grain-market the agriculturist finds in the toll-tax barrier the first claimant of his purse. And according to the report on the 'Marketing of Wheat in India' the octroi duty, terminal taxes and tolls on marketing amount, sometimes, to 4 or 5 per cent of the value of the produce, and are generally to be paid by the cultivator. In the market, the commission-agent and his tout, the weighman and his colleagues, the clerks,

watchmen, sweepers, watermen, a train of beggars and a number of charity houses declare themselves entitled to a share in his produce. The same report points out that the cultivator 'is fortunate, if by the end of a day they have only taken two or three rupees, since they are just as likely in some markets to take 7 or 8 rupees, of his precious hundred.' Over and above this there are other incidental charges, brokerage and selling commission, which, according to the same report, are said to be as low as Rs. 2-1-3 per Rs. 100 in the colony markets of the Punjab; but in the central and eastern markets of the U.P. the total charges may amount to as much as Rs. 7-13-0 per Rs. 100.

This is not the whole of the picture. The vicissitudes of India's political history have brought about different weights and measures in different localities. Often they are false and inaccurate. Absence of grading and standardisation brings not only low prices at home and abroad, but also ill-reputation. The practice of selling a heap of varying qualities of corn and mixed grains is detrimental to the cultivator. The adulteration and exposure of the produce to air and dew overnight, to absorb moisture for increasing the weight, do not only react most unfavourably upon the price, but also involve an useless burden of transport charges. Secret bidding under the cloth, cutting down of price at the time of weighment on pretence of inferior quality, acting of the commission-agent in the interest of the buyer, are some of the other malpractices affecting the cultivator adversely in the market.

In the wholesale distribution the commission and banking charges of the 'Pacca Arhatiya' have a good bearing on price, for, although there are 2500 towns in India with a population of 5,000 or more, bank branches exist in less than 830 of them. Their dealings are largely with the commission-agents who can offer security of godowns. The 'wheat marketing survey' estimates that in some cases the total cost of wholesale distribution apart from railway freight may be barely 4¾ per cent of the prime cost and in other cases as much as 18½ per cent. Excessiveness of railway freights is too well known.

Speculation, particularly in the wholesale trade, has become so inextricably mixed up with the ordinary grain business that it has changed it from trade to gambling in its true sense. Quack speculators have made even the genuine ones to attribute their losses or gains, not to their own actions, but to inexorable fate. A peculiar feature of speculation in Indian agriculture is the part played by the astrologer upon whose advice the merchants often buy and sell.

Retailer's margin is hard to analyse, for it depends upon individual's skill in bargaining and the art of salesmanship. However, concluding with the wheat marketing survey, in some cases at present, the cultivator gets about Re. 0-9-3 out of each rupee paid by the consumer, allowing for the incidental charges the margins of the middlemen and other expenses. This is, as we know it, the profitability of the sole occupation of India!

But there is no reason to be diffident. Lack of organisation among producers seems to lie at the root of all their problems. Marketing is a difficult task for the isolated peasant everywhere. In the agricultural countries of the west organised associations, grain exchanges and pools have secured the best price for their peasants and even controlled the markets overseas. Under Government patronage they have developed their organisations on commodity basis, with facilities for scientific grading and pooling and enforcement of legal contracts. Propaganda and demonstration have been their weapons to win over the impediments. The 'wheat pools' of Canada, 'the Co-operative Bulk Handling' in West Australia, 'Egg Circles' in Denmark, 'California Fruit Growers' Exchange' and 'U. S. Grain Growers Incorporated' in U.S.A., and Co-operative Sales Organisations in Ireland and Newzealand have brought their respective countries to the front rank of exporters. Co-operative marketing, therefore, seems to hold out a hope for India. It would give the producers an organised voice for making the best of their produce. It would minimize the cost of collection and assembling through specialisation of agriculture, standardisation and grading. It would reduce risks through regulation of production and arrange for the distribution of the produce throughout the year, and thus secure stabilisation of prices. In the social sphere, individualism would be modified in the interest of community endeavour, a community spirit would develop and the association of farmers in a business venture would react beneficially upon their individual business methods. Their income shall increase, and for the consumer better service will follow at the same or lower cost, or lower cost will prevail for the same or better service. The length of the chain of middlemen shall be curtailed, and profits accrue to the cultivators in the form of higher prices or to the consumers in the shape of lower prices. It is not because of the services of the middlemen, but because of an obnoxious admixture of the really necessary with the really unnecessary that public opinion gets suspicious of the middlemen. It is the multiplicity and variety of links in the chain that calls for

criticism. Their services under the existing system of exchange are useful and necessary. Concentration and dispersion, correlation of supply with demand, bearing of market risks and finance rightly require skilled services of those who spend their lives in the business. However indispensable they may be, their malpractices cannot be checked save by the organisation of the producers themselves. Organisation of marketing on co-operative basis would be the first step towards the organisation of agriculture. In view of the rapidly increasing population and tendency of the soil towards exhaustion and diminishing returns, the importance of organised marketing cannot be overvalued. And it is through co-operation alone that the illiterate masses can be taught to work out their own destiny.

For the last 30 years, Co-operative Departments in India have been focussing their attention mainly on the supply of cheap rural credit, and have always held that they have not been able to oust the middleman, nor are their dues promptly paid by the members. Truly, their dues cannot be paid unless they provide their members with facilities to pay. They cannot eliminate the middleman until they manage to provide the cultivator with the services which the middleman performs. The middleman supplies credit and purchases the produce. The co-operative credit society does only the former. Evidently it courts its competitor. Organisation of credit and organisation of marketing must go hand in hand. Not only this, as in Burma and countries of the west, it should be incumbent upon the member borrowing from the society, to sell his produce through the society, by moral force or by law. The harvested produce must be handled by the sale society and from the proceeds should be paid the loans advanced by the credit society, the balance being handed over to the agriculturist. This will ensure loyalty of the members, fixity of personnel and certainty of society's existence—factors, the absence of which has been the root cause of the failure of so many sale societies in India. The Agricultural Credit Department of the Reserve Bank of India in their recent two bulletins—one dealing with Co-operative Banking Unions, the other with Co-operative Village Banks—have made suggestions for the overhauling and reorganisation of co-operative credit societies. 'The village bank,' they say, 'must not merely be a source of credit but must help in the finance of marketing of crops and purchase of necessities, take an active part in agricultural and industrial development and improve social and religious customs.' Admittedly, there is need for the credit societies financing their members not merely

for the seasonal operations of agriculture, but also for the movement to markets and marketing the produce raised by their members. There is no reason why the marketing finance of co-operative credit societies and banks should not be placed on a strictly business footing. Loans advanced on the security of produce and realizable in full on its sale are self-liquidating loans, and paper held by a marketing society or village bank relating to such loans ought to be eligible for rediscounting. It has been pointed out by the Reserve Bank that if marketing finance is developed on sound business lines, the dealings of the Provincial banks and the commercial banks will be more closely related to the dealings of the village societies with their agriculturist members, and a class of paper will be created which will enable the Reserve Bank to come into the field, if and when necessary.

The establishment of the Agricultural Credit Department of the Reserve Bank of India, in order to connect the Central Bank with the credit needs of rural areas, would place funds within easy reach of the co-operative marketing societies. The appointment of marketing officers, the constitution of the central marketing staff and its attachment to the office of the Agricultural Marketing Advisor to the Government of India at Delhi, and the marketing surveys are some of the happy signs for the success of co-operative marketing in India.

That there are difficulties and obstacles, which hinder the growth of co-operative marketing, should not dishearten those who have the interest of the country foremost in their heart. Lack of business organisation, reluctance on the part of producers to accept the decision of the society with regard to grading, their unwillingness for common pooling and lack of leadership are few of the serious impediments. For successful organisation, the taking of the best of the middlemen into the co-operative fold and eliminating the weaker ones through efficient working is one of the best recommendations. For overcoming the difficulties of corruption among the staff, education and training in co-operative principles are of utmost necessity. Prejudice and objections with regard to pooling and grading must need arise in the beginning, but they can be overcome by education, propaganda and practical demonstration of better prices. State help with regard to grading and experiences of the services of godowns would help a great deal to solve the difficulty. Leadership, indeed, is a Frankenstein task. It requires men of sterling character—men imbued with missionary zeal and fired by the ideal of service, commanding the confidence of peasants.

Co-operative marketing in India is of 20 years of age, and even the best sale societies seem to have attracted only a meagre percentage of the produce marketed in their areas. They do not command a good turnover—a pre-requisite for influencing a market and lowering the cost of distribution. They have depended mainly on large holders. Intensive organisation requires taking in of small holders as well. Efforts at co-operative marketing in Bengal, Bombay, Madras and the Punjab have met with varying degrees of success; and it is claimed that not only has the marketing cost been greatly reduced, but also the quality has been improved and maintained. Certainly, there are yet vast potentialities. The country-wide problem of marketing can only be solved by developing an integrated system of marketing of the co-operative type, which would be able to study demand and supply, as well as adequate distributing connexions, which would process, grade, standardize, inspect, store, transport, finance and sell the produce, and eliminate the middleman by degrees.

But one swallow does not make the summer! Co-operative marketing alone cannot bring about all that is required. Improvement in means of transport and communications, facilities for dissemination of market news, uniformity in weights and measures, revaluation of railway freight rates and octroi duties are some of the necessary adjuncts to organised marketing. Regulation of markets on all-India basis on the lines of Bombay, C. P., Madras and Hydrabad Market Acts, is highly desirable. The market committees consisting of the representatives of cultivators, traders and officers of the Agricultural and Co-operative Departments, under such acts, frame regulations for the control of middlemen, publish practices and deal with cases of fraudulent weighment and other deceptions. Such an act is necessary so long as co-operation does not fully replace the present haphazard system. Need for godowns and storage accommodation is a vital issue. And of greatest necessity is the co-ordination of the activities of various departments of the provincial governments—for example, agriculture, veterinary, co-operative, education and excise. The co-ordination of the policies of provincial and central governments is one of the administrative needs.

However, in co-operation—the joint effort of the weak, originating among the weak, conducted by them for their own benefit—lies the true solution of the agricultural marketing problem. And as the Royal Commission on Indian Agriculture remarks, 'if co-operation fails, then surely falls the best hope for rural India.'

A STUDY OF POPULATION MOVEMENT IN INDIA*

BY

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It is really surprising that Indian economists have hardly paid any attention to the possible trends of population movement in India. Thanks largely to the researches of Dr. R. R. Kuczynski and Dr. Evid Charles, we have now a statistical method with which to forecast possible movements of population growth during a period of at least seventy or eighty years. These methods have been applied by vital statisticians to various European and non-European countries; and it is now possible to say with a certain degree of definiteness that the population changes will be as follows in the following different countries.[1]

TABLE No. I

Country.	Estimated population.	Estimated maximum population and date when it will be reached.	Future course of population.
England and Wales.	45·4 millions in 1934.	45·1 millions in 1935.	32·7 millions in 1976.
Germany ...	65·3 millions in 1933.	65 millions in 1939.	Under 50 millions by 1970.
U. S. A. ...	126·0 millions in 1933.	136 millions in 1956.	About 125 millions by 1980.

The problem of population in India on the other hand has been mostly studied from the point of view of present numbers only. A keen controversy still rages round the question as to whether India is overpopulated or not; and whether birth-control is desirable or otherwise. We will not now enter into this controversy and shall only point out that such discussions are only one-sided. Assuming that India is overpopulated or otherwise, the next question naturally suggests itself: Will the present state of affairs continue for ever? Is the situation going to improve or is it going to degenerate? Or, in other words, what possible changes in population are likely to take place during the next few years?

* This article was received in August, 1938. M. E.

1 Prepared from Carr-Saunders: *World Population 1934*, page 129.

A crude method of determining the possible changes would be to balance the births which occur during a specified period of years against the deaths which take place during the same period. Thus:

Average number of births per year during, say, 1930—38 is x.
Average number of deaths per year during, say, 1930—38 is n.

Then $x \pm n$ is the average increase per year.

Therefore $x \pm n$ multiplied by m is the average increase in m years.

Therefore, population in m years will be the original population plus $(x \pm n)m$.

This crude method may give the annual natural increase or decrease and hence the total population estimate for a specified number of years.

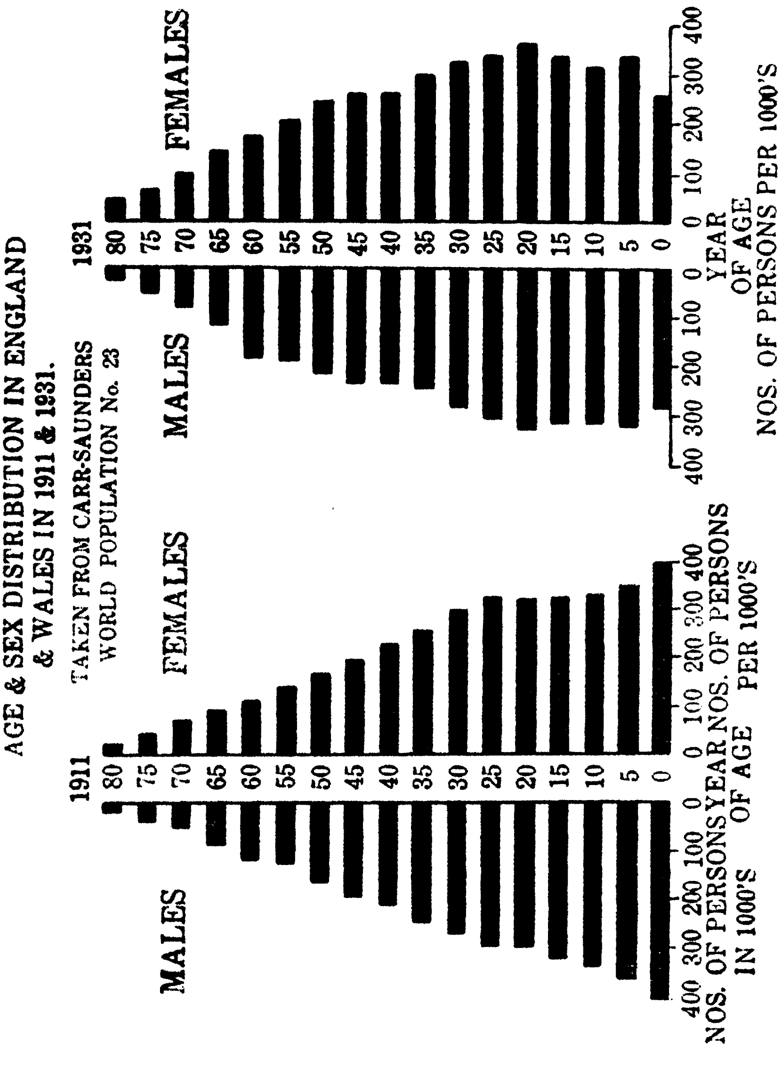
But it is now generally accepted that the above method is sadly inadequate for estimating population trends over any long period of time. It does not take into account the changes in fertility and mortality rates. It is, therefore, important to balance "the force of birth against the force of death;" and when this is done it may well be found, that, in spite of the present excess of births over deaths, the force of death prevails over the force of birth in one very important sense. When we speak of balancing the force of birth against the force of death we[2] mean that we ask whether a certain number of people, say, 1,000, will, if they exhibit during their lives the present fertility and mortality rate, give rise to another 1,000 or to more or less than 1,000. In short, the question is whether, if present conditions in regard to fertility and mortality continue, people will replace themselves. It may seem strange that, in a particular country, although births exceed deaths, yet the population may not be replacing itself.

The answer to such inquiries lies in the analysis of the age-composition of that population. It may happen that births may exceed deaths at a particular time, because a large proportion of women may be within the child-bearing age; but it may also happen that as the age-composition changes, births will tend to decrease and deaths to increase, even if the fertility and mortality rates, that is the forces of birth and death, remain unchanged.

A concrete illustration will prove the point. The following two population pyramids in England and Wales in 1911 and 1931 should be closely examined:[3]

2 Carr-Saunders: *World Population 1936*, page 117.

3 Taken from Carr-Saunders: *World Population*, page 120.


AGE & SEX DISTRIBUTION IN ENGLAND
& WALES IN 1911 & 1931.
TAKEN FROM CARR-SAUNDERS
WORLD POPULATION No. 23
1911
MALES
FEMALES
80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0
400 300 200 100 0
0 100 200 300 400
NOS. OF PERSONS IN 1000'S
YEAR OF AGE
NOS. OF PERSONS PER 1000'S
1931
MALES
FEMALES
80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0
400 300 200 100 0
0 100 200 300 400
YEAR OF AGE
NOS. OF PERSONS PER 1000'S

The first pyramid shows that the lower steps all project markedly beyond those which come next above. In this pyramid the rate of diminution of each successive step is more or less even and we may conclude that given such an age-composition, the population will keep on growing. In the second pyramid, however, the first three steps (with one exception) are actually smaller than the next three steps. Thus as years pass the older population will increase more than in proportion to the younger population. This means that (*i*) the growth of population will not be even and (*ii*) the number of deaths after a certain period of time will be greater than the number of births, or in other words, the force of death will be greater than the force of birth, resulting ultimately in the decrease of population.

These facts make it clear that it may be an error to deduce from an existing surplus of births over deaths that the population will continue to increase, things remaining the same in regard to fertility and mortality.

We, therefore, need a better method of ascertaining whether the population is replacing itself or not. This can be done by determining the Gross and Net Reproduction Rates as elaborated and used by Dr. Kuczynski. But these rates cannot be determined unless we have the specific fertility rates. These are not available in India and no attempt has yet been made on any large scale to obtain them.[4] In order to obtain such fertility rates the age of the mother at the time of each successive birth should also be recorded in the birth-registration records. This information could then be tabulated so as to give the number of children born to women in each year of child-bearing age. Though not ideal, the information regarding the number born to women in five-year age-groups may be sufficient.

Let us suppose we possess it. We can then calculate the births per 1000 women in each five-year group. In order to calculate the growth of population by this method, we will only have to take the girl-babies born into consideration, since births can occur to women alone and men could here be left out of account. We can then construct a table as follows:[5]

4 *See Census Report 1931*, Part II, pages 596-97.

5 Carr-Saunders : *World Population*, page 121.

Table No. II

Age-Groups.	No. of female children born to 1,000 women passing through each age-group.	No. of survivors out of each 1,000 female children born.	No. of surviving women by whom present women replace themselves.
15—19	100	800	80
20—24	400	750	300
25—29	200	700	140
30—34	150	650	97·5
35—39	100	600	60
40—44	50	550	27·5
	1,000		705

The above table enables us to determine "the net reproduction rate." It shows that 1,000 women of the child-bearing age will replace themselves, with 705 women; or, in other words, "the net reproduction rate" is 705/1000 or less than 1. This means that within a generation the population will be reduced by a quarter, a generation being taken to mean 30 years.

Following the above method, we shall now attempt to study "the net reproduction rate" for India. The information at our disposal is highly inadequate, and there are no figures available about the fertility rates. Even then an attempt is worth making, and even if it brings home the great importance of fertility rates to Indian economists, our purpose will have been served. If the 1941 census aspires to be in line with the vital statistics of the world, the Government of India would do well to move immediately in the matter.

In the first place the Census Report enables us to obtain a rough idea of the age and sex-composition of the population. Thus:

Table No. III

Number of child-bearing women in various age-groups (1931 Census) (Figures in millions)

Age-Group.	Total number of females.	Total number of married females.	Total number of uumarried females.	Total number of widows.
10—15	19·08	7·26	11·60	·18
15—20	15·89	13·00	2·36	·53
20—25	16·69	14·78	1·03	·86
25—30	14·74	12·79	·35	1·58
30—35	12·81	10·56	·25	2·00
35—40	10·08	7·92	·15	2·85
40—45	8·56	5·37	·12	3·08
Total All India.	107·85	71·68	15·86	11·10

The above table gives us the number of women, married, unmarried and widowed, in each of the child-bearing groups. We may, for all practical purposes, omit unmarried and widowed women from our estimate of "the net reproduction rate," since neither of them in India are likely to have children.

As has been said above, no reliable information regarding the rates of fertility are available in India.[6] We may, therefore, be allowed to guess these from what knowledge we may possess of actual conditions in India. But before we put forward any such guess, we will assume: (1) that the average number of girl-babies born is about the same as the number of boy-babies born. This is approximately true of India where the female and male populations are 170 and 180 millions respectively, and (2) that the number of children born is as follows:

TABLE No. IV

Age-group.	Total number of children born to each woman passing through each age-group.	Total number of girl-babies born to each woman, assuming on the average the number of girls and boys to be the same.
10—15	1	0·5
15—20	4	2
20—25	4	2
25—30	4	2
30—35	1½	0·75
35—40	1½	0·75
40—45	1	0·50

A new table may now be constructed to obtain the number of girl-babies born to women, in each of the different age-groups:

TABLE No. V

Age group.	Total number of married females (millions).	Estimated number of births of girl-babies to each woman according to various age-groups.	Total estimated number of girl-babies born in each group, (in millions).
10—15	7·26	0·50	3·60
15—20	13·00	2·00	26·00
20—25	14·78	2·00	29·56
25—30	12·79	2·00	25·58
30—35	10·56	0·75	8·40
35—40	7·92	0·75	6·00
40—45	5·37	0·50	2·68
Total	71·68		101·82

6 *The Census Report 1931*, Part II, pp. 596-97, gives details regarding 568, 628 families in respect of the average size of family correlated with the age of wife at marriage. These figures show that the size of family is at its highest

The recent addition of vital statistics to the Statistical Abstracts for British India, 1935-36, enables us to obtain a fairly correct notion regarding the ratio of deaths per 1,000 of population according to age and sex. The average ratio of deaths may, therefore, be deduced as follows:

TABLE No. VI[7]

Ratio of deaths per 1,000 of the female population according to age.[8]

Year.	Under 1 year. **	1 year and under 5 years.	5 years and under 10 years.	10 years and under 15 years.
1931	170·0	37·30	10·50	6·60
1932	159·6	30·30	8·60	5·52
1933	163·0	33·30	10·00	6·00
1934	169·0	34·00	10·00	6·00
1935	158 0	36·00	10·00	6·00
Average for 5 years (1931—35)	167·0	28·00	10·00	6·00

Assuming that the above death-rates continue to prevail for some time, out of every 1,000 girl-babies born only 800 will survive to the child-bearing age, since according to the above death-rates:

Out of 1,000 girl-babies 833 will survive up to 1 year.
" " 833 " 809 " " " 5 years.
" " 809 " 801 " " " 10 "
" " 801 " 799 " " " 15 "

Thus out of the estimated 102 million girl-babies born, about 80 per cent or about 83 millions will survive to the child-bearing

when the age of wife at marriage is between 15 and 19 and when it is about 30 years.

7 These are all-India averages; but in some provinces the mortality is excessive. Thus it is in C.P. and Berar it was 280 in 1931. it was 256 in Ajmere-Merwara, 263 in Delhi, 268 in Burma, etc. etc.

8 Prepared from Statistical Abstracts for 1935 36, pp. 96-97.

age. Now assuming that all these girl-babies survive the full reproductive age, the net reproduction rate would be approximately $\frac{83}{72}$ or greater than unity.

We must now make allowance for various other factors. In the first place a certain number of marriages must prove to be sterile. The Census Report gives details regarding 1,037, 163 families examined and it was found that 167, 378 or about 16 per cent of them were sterile. The number of married women from the Table No. III must now be reduced from 72 millions by 16 per cent, or the number of women capable of producing children must be regarded not as 72 millions but about 61.

The corrected net reproduction rate may now be put as $\frac{83}{61}$ or $\frac{8}{6}$ or 1·33.[9] This means that during the next generation (of 30 years) the population of India will increase by a third or that the 1961 Census would show a population of about 460 millions. This is an alarming conclusion, but it is supported by evidence independent of the assumptions and inaccuracies involved in the above method.

In the first place, the age-composition of the present female population is extremely favourable to population growth. Thus:

TABLE No. VII

Percentage of variation in population according to age periods.

Period.	Total.	0—5 years.	5—10 years.	10—40 years.	40—60 years.	Over 60 years.
1881—91.	+11·2.	+16·2	+ 4·3	+10·8	+9·7	+ 8·7
1891—1901	+ 1·8	− 5	+14·5	+ 2·3	+5·3	+ ·03
1901—1911	+ 6·6	+ 9·7	− 1·7	+ 7·3	+5·1	+ 8·6
1911—1921	+ 0·9	+ 0·1	+ 8·5	− 1·0	+1·1	+ 3·3
1921—1931	+10·9	+14·5	+10·6	+15·1	+3·1	−14·9.

Since the beginning of this century India experienced two large increases in population, namely, once during 1901 to 1911 and during 1921 to 1931. The above figures show that the age-composition during the decades preceding these was very favourable for a population growth. Thus in 1891 to 1901, the propor-

9 See Progs: *All-India Population Conference 1938*, page SA 20, where Prof. Radhakamal Mukerji estimates "the net reproduction rate" at 1·454. It seems he has not made sufficient allowance for sterility, widows and unmarried women. In any case the divergence between his figure and ours is not too great.

tion of those in the age-group 5 to 10 was higher than in any other group. This group attained the age of reproduction during 1901 to 1911 and was largely responsible for the growth of 6·6 per cent. Similarly the age-distribution of the present population is extremely favourable for a large and continuous growth of population. Compared with the preceding decade 1911 to 1921, the number of those in the group 0 to 5 was 14·4 per cent higher. This group will fall in the 15 to 20 group in 1941 and since it consists of the population with a very high fertility rate, the increase in population during 1941 to 51 will be very high.

It should also be noted that the increase of 11 per cent in the population during 1921 to 1931 was mainly due to an increase of 14·5 per cent in the age-group 0 to 5 years and of 15·1 per cent in the group 10 to 40 years. The most outstanding feature of the age-composition of the population in 1931 was that whereas the total population had increased by 11 per cent, the number of those beyond the age of reproduction actually had decreased by 14 per cent. This may have been the result of the epidemic of influenza in 1918 to 1919 in which the incidence of death in the age-group 20 to 40 was the greatest. The Census Report of 1921 mentions that "the excess mortality between the ages 20 to 40 amounted in some cases to nearly four times the mean."[10] The position in 1931 may now be summarised thus:

(*i*) The number of older persons beyond the age of reproduction was proportionately the least as compared with any year during the last five decades.

(*ii*) The number of young persons who were soon likely to attain to the age of reproduction was the greatest as compared with any other year during the last five decades. We may almost say that the Indian population is much younger to-day than it was ever before and that the force of birth at present is infinitely stronger than at any other time in Indian history. This, in itself, is a strong indication of the fact that the Indian population will at least maintain its present rate of growth for another thirty or forty years.

The following table shows that a similar tendency is also noticeable in the age-composition of the female population:

[10] *Census Report*, Part I, page 13.

TABLE No. VIII

Age-Distribution of 10,000 females in India.

Age.	1931.	1921.	1911.	1901.	1891.
0—15	4,000	3,890	3,813	3,803	3,869
15—40	4,164	3,880	4,056	4,030	4,213
Over 40	1,836	2,330	2,131	2,117	1,968
Total.	10,000	10,000	10,000	10,000	10,000

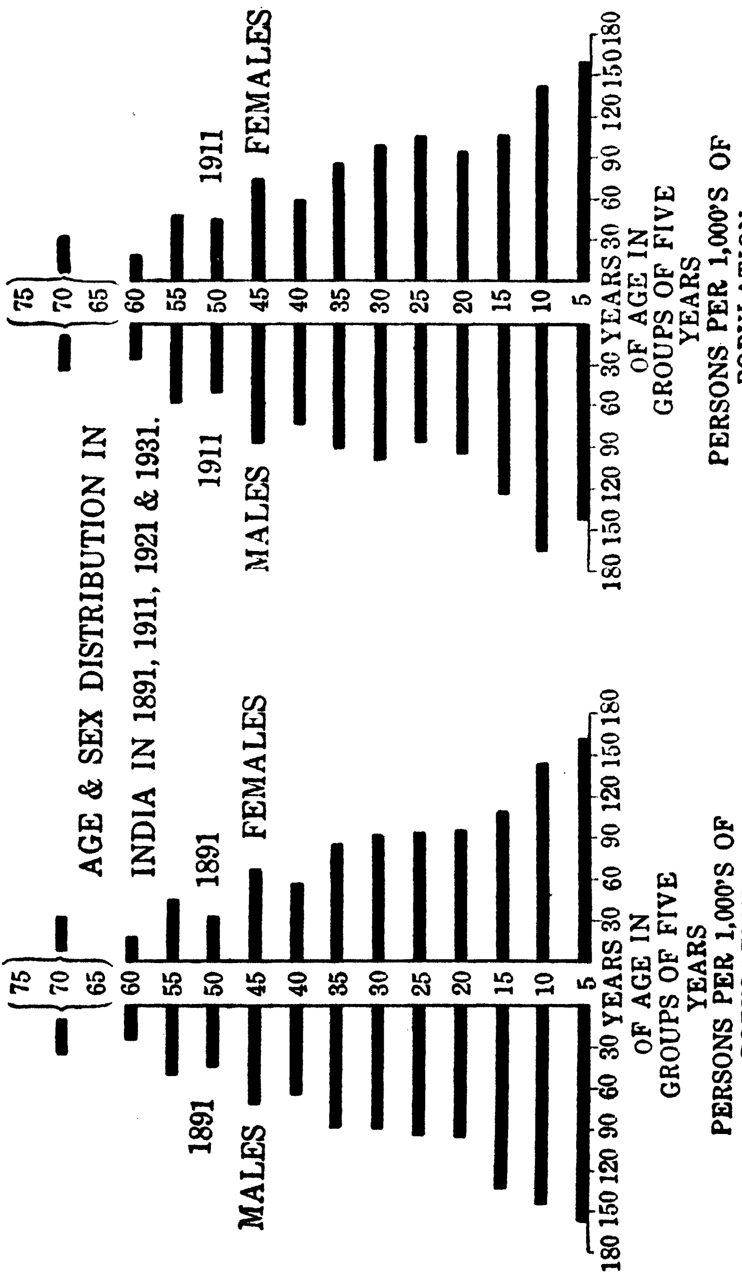
These figures show that a steady change is taking place in the age-composition of the female population also. There is a gradual tendency for the number of females per 1,000 of the female population to increase within the age of reproduction and to decrease beyond that age; or, in other words, there are more mothers and potential mothers to-day than there were ever before.

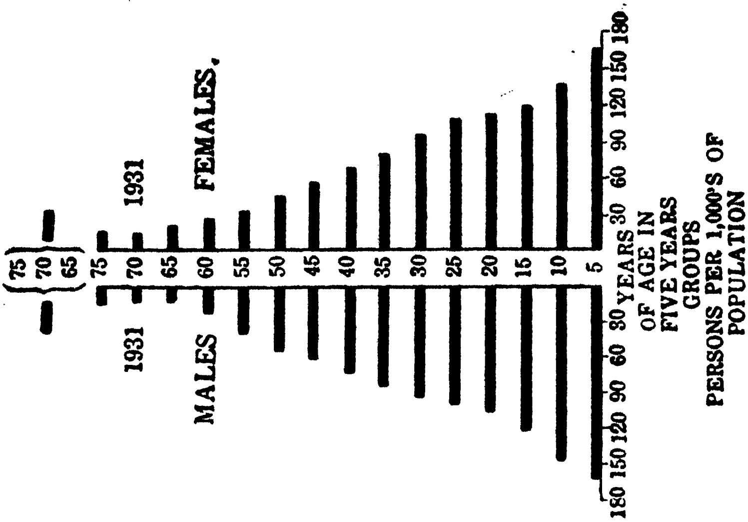
We are thus well fortified in saying that during the next thirty or forty years, there will be a steady increase in Indian population and that at a conservative estimate the present rate of growth will at least maintain itself. The influence of some very unfavourable factors, such as famines, epidemics, etc., may perhaps check this growth, but the danger of famines is now practically non-existent and it is unlikely that epidemics under the present conditions of medical aid would greatly affect total numbers. During the epidemic of influenza in 1918-19, though the total "mortality exceeded by nearly two millions the total estimated deaths from plague extending over twenty years (1898—1918)" and "a good deal more than double the death-rate directly attributable to the famines of the period 1897—1901," the total mortality directly attributable to the epidemic did not exceed 12 millions or four per cent of the population.[11] Hence it is improbable that famines or epidemics would greatly affect the total population in the near future.

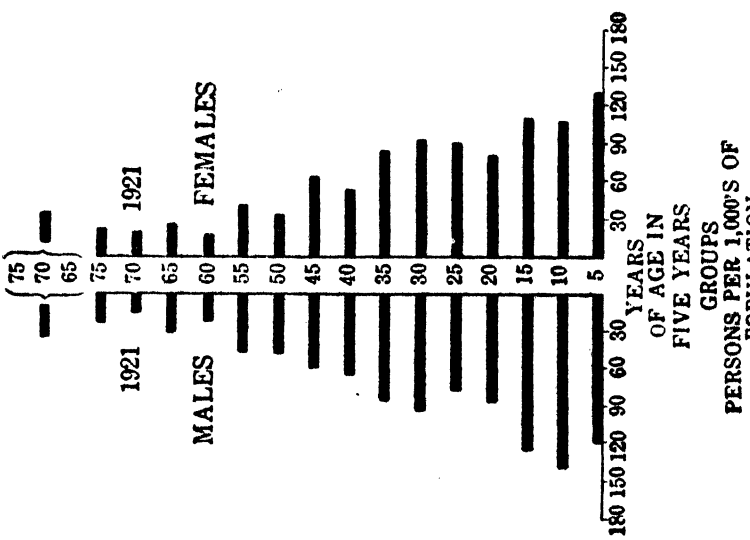
The population during the next thirty years may, therefore, be estimated as follows:

. . . . population	in	1931	353 m.
at 10 per cent increase, population	„	1941	388 m.
„ „ „ „ „	„	1951	426 m.
„ „ „ „ „	„	1961	466 m.

11 *Census Report*, Part I, page 13.


AGE & SEX DISTRIBUTION IN
INDIA IN 1891, 1911, 1921 & 1931.
1891
MALES
FEMALES
1911
MALES
FEMALES
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
YEARS
OF AGE IN
GROUPS OF FIVE
YEARS
180 150 120 90 60 30 30 60 90 120 150 180
PERSONS PER 1,000'S OF
POPULATION


MALES
1931
FEMALES.
1931
75
70
65
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
180 150 120 90 60 30
30 60 90 120 150 180
YEARS
OF AGE IN
FIVE YEARS
GROUPS
PERSONS PER 1,000'S OF
POPULATION


MALES
1921
FEMALES
1921
75
70
65
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
180 150 120 90 60 30
30 60 90 120 150 180
YEARS
OF AGE IN
FIVE YEARS
GROUPS
PERSONS PER 1,000'S OF
POPULATION

It will be noticed that the estimate thus arrived at is substantially the same as that deduced from the calculation of "the net reproduction rate."

It may be argued, as indeed it has often been, that an increasing use of birth-control in India is likely to reduce the rate of fertility and is thus likely to check the growth of population *in the near future.* Some Economists have even gone to the extent of advocating birth-control as an *immediate* cure for the evils of overpopulation. In support of such arguments, instances of European countries have been cited and it is maintained that the lowering of fertility rates in the West has been brought about by birth-control. It is, therefore, necessary to examine this argument.

Professor Carr-Saunders, who has devoted considerable attention to this subject, reviews the growth of birth-control activity in his book on *World Population.* He comes to a definite conclusion that birth-control by itself cannot fully account for the great reduction in the fertility rates of European countries, though he concedes that it has certainly played some part in the matter. But as far as non-European countries are concerned birth-control cannot, according to him, be regarded even as a factor of any great importance. He leaves the whole question open by observing that:

> "Our ignorance of human reproductive physiology is profound, and it may very well be that the chance that the conception will follow intercourse has been reduced by one or more of the innumerable changes in the mode of life which have come about in the last few decades."[12]

It is also significant that at a time when England is in the imminent danger of a rapidly declining population responsible public opinion is most insistent upon its advocacy of birth-control. It is felt that a doubtful loss in numbers is more than made up by a definite gain in the reduction of infantile mortality and in the general improvement of the physical and mental qualities of the population.

12 *World Population,* page 102. Dr. Kuczynski, however, firmly believes that birth-control has been an immensely important factor in the rapid fall of birth-rates in most of the European countries during the post-war period.

The relevance of the above discussion lies in the fact that the varied experience of the West does not give much reliable indication as to the exact effects of birth-control on the reduction in total numbers. It is, therefore, necessary to examine, with special reference to Indian conditions, whether birth-control is likely to affect the growth of population during the next thirty or forty years. In the first place, it is highly improbable that birth-control would even touch the fringe of the millions of rural population during the next thirty years or so. With all the efforts of Government and local bodies such beneficent movements as co-operation, eradication of disease and illiteracy are yet in their early stages of development and there is no ground for believing that birth-control will exert a greater influence on the masses. Perhaps the greatest obstacle in the way of the movement would be the lack of a cheap and reliable contraceptive suitable to the requirements of an average Indian woman. Margaret Sanger speaking at a private meeting in London confessed that after years of anxious research she had failed to devise a contraceptive for the rural population which would be even fifty per cent effective and could be obtained for less than eight annas per month. Lord Horder also came to a similar conclusion and wondered if anything like a safe contraceptive could be obtained for Indian requirements at less than Re. 1 per month. It is, therefore, perfectly obvious that the few women in India could afford Rs. 6 to Rs. 12 per year on contraception. Moreover, though the population of India is so great, the size of an average family is only five. As a matter of fact, an average Indian household is not larger than one in many European countries and it is actually smaller than the average household in Australia, Canada and the U.S.A. Since social customs and religious beliefs are not particularly favourable to birth-control an average Indian family consisting of two parents and only three children will have no great inducement to resort to birth-control.

Moreover, it should be clearly understood that birth-control cannot immediately reduce the population or even check the present rate of growth. In a country which suffers from the handicap of excessive infantile mortality, proper spacing of children, proper care of the infant, and improvement in the health of the mother may result in such a lowering of infantile mortality rates, that a fall in fertility may be more than made up by reduction in infantile mortality. The Indian infantile mortality rates are so excessive that they compare very unfavourably with those of other countries and in order to bring them into line

with others, they would have to be lowered about sixty per cent through organised effort.[13]

The conditions in India cannot therefore be properly compared with those in other countries. Even if the birth-control movement were to become more popular, it is highly unlikely that it would effect more than fifteen to twenty per cent of the population. This would naturally be a class of intelligent citizens who have awakened to the sense of responsibility and who have also grasped the lessons of ante-natal and post-natal hygiene. It is, therefore, likely that in this class of society infantile mortality would also be reduced through birth-control. The reduction, say, of fifteen per cent in fertility rates, may perhaps be offset by a reduction in infantile mortality, say, by fifty per cent. That is to say, that by the time infantile mortality has reached a certain minimum consistent with climatic and social conditions in India, the population as a whole will have adapted itself to the habit of birth-control and thus there would be a reduction in the rate of growth of population. When this stage is reached, the process of social adjustment may be said to be complete. This point may well be illustrated by the following table.

[14]TABLE IX

Deaths under one year per 1000 living births.

Country.	Average 1921-25.	Average 1926-30.	Average 1931-35.	1935.	1936.	1937.
Union of S. Africa	73	67	63	63	59	58
Canada ...	98	93	75	72	71	66
United Kingdom ...	78	70	65	60	62	61
Japan	159	137	120	131	122	...
Australia ...	58	52	41	40	41	38
New Zealand ...	43	37	32	32	31	31
U. S. A. ...	63	64	60	56	52	53
British India including Burma	187	210	207	215	187	179

13 Prepared from Statistical Year Book of the League of Nations, 1937-38.

14 Prepared from Statistical Year-Book of the League of Nations, 1937-38.

The above figures show clearly that (i) whereas the reduction in infantile mortality rates in other countries has been fairly considerable, the reduction in India since 1921 is practically insignificant and (ii) that the Indian rates are often about three to four times those of western countries. Thus there is a great scope for improvement.

TABLE X

	Number of children born.	Infantile mortality per 1,000.	Number of survivors.	Net increase + or net decrease – after the use of birth-control, but before the completion of social adjustment.
Non-users of birth-control.	1,000	300	700	...
Users of birth-control.	850 ...	175 150 ...	701 722 ...	+ 1 + 22

Since it is certain that birth-control and reduction in infantile mortality must at first go together, birth-control cannot, during the process of social adjustment, check the rate of growth. On the other hand, it is possible that birth-control may actually accelerate the growth before the adjustment has taken place. It is not, therefore, necessary to make allowance for this factor in the calculation of population growth during the next three or four decades.

The position as regards the trend of population movement may now be summarised as follows:

In the first place, the estimated "net reproduction rate" is 1·33 which shows that by 1961 the population will be in the neighbourhood of 460 millions. There is conclusive and independent evidence to show that the present age-composition of the population is so favourable for a steady growth that the present rate of growth will at least maintain itself for the next two or three decades.

Secondly, it is highly unlikely that even if such unfavourable factors as famine and epidemics were to intervene the reduction in total numbers would be very great. Similarly birth-control would not also be able to check the present growth and it is even possible that until a full adjustment takes place, birth-control may actually increase the rate of growth.

Thirdly, if the present is in any way an indication of the future, it would be better so to organise our resources, that we may be able to cope with this large increase in population during the next thirty years or so.

OPTIMUM PRODUCTION UNDER IMPERFECT COMPETITION

BY

P. C. JAIN, M.A.

This paper deals with problems, some of which are often posed under the title of "Excess Capacity,"[1] as an accompaniment of imperfect competition.[2]

A full competitive equilibrium, to put it shortly, has (among others) the following two characteristics: (*i*) The marginal rate of substitution (to entrepreneurs and to consumers) of each "factor" or "commodity" in terms of the other equals its price. (*ii*) Production is carried on under optimum conditions.

Even under conditions of imperfect competition (when the demand curve for the product of any individual firm is downward sloping) the consumer will be in equilibrium only when his indifference curve is tangential to the price line. The fact that he is no more indifferent between different sellers will not modify the working of this mechanism. No doubt, under imperfect competition, he may have to pay a higher price and the total quantity of goods supplied may be less than would have been under price competition, and to these possibilities we will turn

1 Excess capacity is the difference, in physical terms, between the maximum units of output the resources are capable of producing at lowest average cost per unit, and what they actually produce. The concept of "Excess Capacity" has been used in two senses. One, in the sense of fixed plant or equipment "lying idle." This is the businessman's use of it, and only applies to the short period. Second, by excess capacity we understand a situation when by rearranging the factors of production we can secure production, which so far it was not, at minimum average cost, and thus add to the National Dividend. This is a long-run view. Excess capacity in this sense can arise not only for fixed capital but for all factors. It is in this sense that we will use the term in this paper. On this matter of definition see Prof. J. M. Cassels' excellent paper on "Excess Capacity and Monopolistic Competition," *Quarterly Journal of Economics*, May 1937.

2 It will be remembered that in modern literature perfect competition is supposed to prevail when: (i) the number of buyers and sellers is so large that the doings of any one of them does not have an appreciable effect on the total market situation; (ii) buyers are indifferent between different sellers. Thus the demand curve for the product of each firm is parallel to the ⅹ-axis, and prices are beyond its control. Imperfection of competition arises from absence of either one or both of these conditions. In this paper only a bare outline of this difficult problem is attempted with a view to clarify some of the issues involved.

in a moment, but the individual will only come to equilibrium when his indifference curve is tangential to the price line. No possible modification is involved in the theory of choice. Same is true of factors of production. As we know, under imperfect competition, the factors of production receive a remuneration less than the value of their marginal product. But the factors will be substituted for each other till the marginal rate of substitution is equal to price.

But a substantial modification is required in the other characteristic (about optimum condition) of equilibrium when competition is imperfect. We now turn our attention to this problem.

Under conditions of perfect competition, the demand curve for each producer is infinitely elastic, it is horizontal to the X-axis. No single producer can raise the price by holding back a part of his resources. It is in his best interests to offer them all in the market. This fact ensures that the best use will be made of all available resources. Secondly, each producer adjusts himself so that his marginal cost equals marginal revenue; but since the demand curve is horizontal, marginal revenue equals price, hence marginal cost equals price. But price must equal average cost as well, because if it were higher than average cost the extra profits so obtained will attract new producers into the field, if price is lower than average cost some producers will be eliminated from the market. In equilibrium average cost must also equal price. Therefore marginal cost equals average cost. We know that marginal cost curve cuts the average cost curve at its lowest point. Hence production under least cost conditions is also secured.[3]

But this may not be the case under imperfect competition, when the demand curve for each individual producer is not horizontal. This curve may be downward sloping for various reasons. There may be genuine differences of quality in the goods produced by different producers. In spatial competition[4] transport costs may make the difference. The consumers' attachment may be due to ignorance, inertia, or sheer sentiment.[5]

[3] On this consult Mrs. Joan Robinson's *Economics of Imperfect Competition*, 1933.

[4] Cf. H. Hotelling—" Stability in Competition," *Economic Journal*, March 1929. Mr. Lerner—*J. P. E.*, April 1937. J. R. Hicks—*Econometrica*, February 1935.

[5] On all this consult Kaldor " Market Imperfection and Excess Capacity," *Economica*, February, 1935.

The problem is, will the mere fact that the demand curve for any individual producer is downward sloping cause the generation of excess capacity and non-optimum conditions? A frightful confusion has arisen in the near past by considering imperfect competition in commodity market at once with certain conditions that usually accompany it. My meaning will be clear presently. First, we will consider a very artificial case under rigid assumption, to trace the consequences of a downward sloping demand curve, abstracting from other complications.

Assume that there is imperfect competition in the commodity market but the supply of factors of production to the producers is infinitely elastic, *i.e.*, the supply curve of the factors of production is parallel to the X-axis. This prevents any possibility of "exploitation" of the hired factors by the hiring factors.[6] Secondly, assume that the number of producing units is a given datum.[7] If it were not so, there is a possibility of the number becoming excessive and thereby involving us into consideration of external economies and diseconomies. A brief reference to it will be made later. Finally, assume that the technical coefficients of production are not fixed. The producer can vary the proportions in which he combines the different factors.

Let us now look at the entire productive system. Each producer equates marginal cost to marginal revenue. Since the demand curve for his product is not horizontal to the X-axis, for some products it will be more elastic than for others. Hence greater output will be produced of goods whose demand is more elastic, and less output of goods whose demand is less elastic than would have been the case, if the demand curve for all of them was horizontal to the X-axis. Thus one result of imperfect competition in the commodity market is that goods are produced in wrong proportions. "Wrong" has no ethical connotations, it only indicates the difference from perfect competition. Secondly, under imperfect competition buyers are not indifferent between different sellers. By reason of ignorance, inertia, sentiment, or otherwise some buyers prefer a particular seller, who in order to take advantage of this preference may provide a new brand of the commodity. To maintain the preferential

[6] This assumption also secures the absence of any "institutional monopoly" (cf. Kaldor, *loc. cit.*)—*i.e.*, the possession of Patents, Trade Marks, or indispensable scarce goods—on the part of any producer.

[7] Prof. J. M. Cassels (*loc. cit.*) secures the same condition by assuming that there is free entry but that the existing producers follow an "aggressive price policy."

attachment he will supply almost the same article under a different name or with slight differences in quality. Imperfect competition also encourages variety, which it would not have been in the interest of producers to countenance under perfect competition.

But though now goods are produced in wrong proportions, and there is a greater variety, will they be produced under least cost conditions? The answer is, Yes. This for the following reason:

Under perfect competition each factor of production received a remuneration equal to the value of its marginal product. Under imperfect competition the remuneration will still be proportional to the value of marginal product, because the marginal revenue with which the marginal (physical) product of each factor in an industry has to be multiplied (to obtain marginal revenue product) is the same for all factors. The point will be proved if we can show that production is carried on under least cost conditions even when the remuneration of factors (though not equal to) is proportional to the value of their marginal product. Take an illustration.

Suppose there are two factors of production x and y, and there are two products A and B. Under perfect competition in equilibrium,

$$\frac{\text{Price of factor } x \ (P_x)}{\text{Price of factor } y \ (P_y)} = \frac{\text{value of the marginal product of x } (K_x)}{\text{value of the marginal product of y } (K_y)}$$

in both A and B. Now suppose under imperfect competition the elasticity of demand in A is 2 and that in B it is 3. We know that Price$=$MR x $\frac{E}{E-1}$ where E is the elasticity of demand.

Therefore under imperfect competition in,

(A) $$\frac{P_x}{P_y} = \frac{\frac{E-1}{E} \times K_x}{\frac{E-1}{E} \times K_y} = \frac{\frac{K_x}{2}}{\frac{K_y}{2}}$$

(B) $$\frac{P_x}{P_y} = \frac{\frac{E-1}{E} \times K_x}{\frac{E-1}{E} \times K_y} = \frac{\frac{2\,K_x}{3}}{\frac{2\,K_y}{3}}$$

This illustrates that with different elasticities of demand in A and B the price (per unit) of factors of production is still proportional to the value of their marginal product.

For the production of any output—determined by the elasticities of demand in the present case, there are a number of alternative technical combinations of factors of production. Which of the combinations will be used depends, among other things, on the relative prices of factors X, Y, Z. Equilibrium will only be secured when the combination used is in conformity with the relative prices of factors of production. If such is not the case, but say,

$$\frac{Kx}{Px} > \frac{Ky}{Py}$$

the consequence of this disparity is that x will be substituted for y till the above two are equated, by a fall in the marginal productivity of x and by a rise in Ky. Thus equilibrium will only be secured when the equal product curve is tangential, to the price line, its mere inspection demonstrates that at the point of tangency, the technical combination used is the "least cost" combination.

The above argument only proves that whatever output (depending on the elasticity of demand) the producer desires to obtain will be secured at lowest cost. In this sense the situation is optimum. But there is a second sense, as we saw, in which the situation is optimum under perfect competition but it is not optimum under our simplified case of imperfect competition. I have in mind the "ideal output" from the point of view of national dividend. There is nothing to suggest in the above argument that while production is carried on under least cost conditions, all the resources will be fully employed.[8] Since the demand curve is downward sloping, and its slope is different in different "industries," the extent to which production will be carried in each "industry" will depend on the respective elasticities of demand. By restoring conditions of perfect competition this disparity will be removed and maximum National Dividend will be secured.[9] Let us remember that we are still discussing a highly simplified situation.

[8] By full employment we mean that it would not be possible to secure an additional unit of any commodity A without sacrificing units of some other commodity B.

[9] This links us with Kahn-Paine controversy on the topic. Cf. Kahn "Notes on ideal output," *E. J.*, March 1935; Paine—"Rationalization and Excess Capacity," *Economica*, February, 1936. Also *Economica*, August, 1936. Our conclusion should be distinguished from Mr. Kahn's, because of differences of assumptions. Mr. Kahn concluded that "reproduction in all industries of the conditions of perfect competition would leave the situation just as it was before,

An interesting question arises here. Granted that under imperfect competition, commodities are produced in wrong proportions, excessive variety is encouraged, optimum production from the point of view of National Dividend is not secured, why worry if that is what the consumers want? It has been said that all this happens because the consumers prefer so. Here we need to distinguish between "rational" and "irrational"[10] preferences. The economist will not escape the blame of passing value judgments, in recommending "rationalization" if all consumers' preferences were "rational." Though it is not possible to draw a very precise line between "rational" and "irrational" preferences, preferences which are due to genuine differences in quality, transport costs or possession of "institutional monopoly" may very well be called rational. Consumers' preferences due to ignorance, inertia and sentimentality may be put under the latter category. Interference to remove these latter will increase, not reduce, the National Dividend.

It is time, that we remove the first two of our three assumptions. Now the supply curve of factors of production is not horizontal. The producer can monopolistically exploit his factors of production depending on (*i*) their elasticities of supply, (*ii*) the producers' capacity to discriminate between them. As a consequence the remuneration of factors will not even be proportional[11] to the value of their marginal product. Hence production will not be carried even under "least cost" conditions. This is a significant departure from our simplified case.

Furthermore now the number of producers is not a given datum. It is very likely that under imperfect competition the number of producers will be excessive. Each one will supply a small fraction of the output. Economies of scale—external and internal—can now be obtained by concentrating output in

so far as concerns the arrangement of resources and National Dividend," *Economica*, p. 327. Mr. Kahn has assumed, among other things, (i) that the elasticity of demand for *all* commodities is of the same magnitude, (ii) that imperfection is due only to "rational" preferences. Both these are differently conceived in our analysis.

10 Mr. Kahn, from whom we borrow this term, defines irrational preferences as those "which obtain no justification, when they are satisfied, in actual enjoyment and the thawing of which causes no loss of satisfaction." *Loc. cit.* p. 25. This definition, as is evident, is very unhelpful to the administrator but nothing more precise than this is possible.

11 Unless, of course, by chance, the elasticities of supply for all factors, though not infinite, happen to be of the same magnitude.

fewer hands, by increasing the size of the firm as well as the plant.[12]

How such an excess capacity will be created and the number of producers rendered excessive can be visualised in either of the two ways:

(*i*) Take an industry in which excessive profits are made, *i.e.*, the downward sloping demand curve lies to the right of the average cost curve. This may be corrected by aggressive price policy on the part of existing producers. In that case the price will fall to the level of average cost. But alternatively price may equal average cost by more firms entering[13] into the industry and by increase in the number of producers, and consequently by average cost rising up to the price, because of inefficient small-scale production. This will generate excess capacity.

(*ii*) There is an industry in which production is carried on so that average cost equals price. But for some reason the demand recedes. Under conditions of perfect competition the lowest cost firms only will remain in production. But under imperfect competition the high cost firms, as they can always count on getting some custom, will stay so long as their prime costs are covered. Excess capacity results.[14] It is not a solution, even partial, of this excess capacity to point out[15] that a single product firm may become a "many product firm." This may, under certain conditions, remove excess capacity in the sense of "idle plant," but will further increase excess capacity, in our sense, by multiplying the number of producers in the field of those "many products" to which the firms are expected to resort.

Imperfect competition in the product and the factor market is marked by production of commodities in wrong proportions, in excessive variety, and under non-optimum conditions. A removal of these will benefit the National Dividend. But in formulating the policy of State, not only economic, but political and social considerations are equally important. In framing policy these other considerations may very well modify our conclusions.

12 Cf. Robinson—Structure of Competitive Industry. Prof. Sargant Florence—"Economic Research and Industrial Policy," *Economic Journal*, December, 1937.

13 Mr. Kaldor (*loc. cit*) points out the possibility of the new comer from being discouraged if he acts on the basis of his "Imagined Demand Curve" instead of the demand that is likely to fall to him in the immediate future.

14 In this case Excess Capacity of both types exists. There will also be idle plant side by side with inefficient production; for the present paper attention should be fixed on the latter.

15 Cf. Dr. Hicks (*loc. cit*) for a different view.

THE THEORY OF CONSUMER'S SURPLUS
A DEFENCE

BY

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The most damaging criticism in recent years of the theory of consumer's surplus, has been that of the late Prof. Davenport in his book, *The Economics of Alfred Marshall.*[1] No doubt, English economists have manifested a tendency to ignore his criticisms on Marshall in general, and some have even gone to the extent of charging him with an absence of understanding of Marshall's principles—an incredible accusation when levelled against so eminent an economist. (See Guillebaud's criticism in the 1937 March issue of the *Economic Journal.*)

To the writer it appears that the shortcomings, if any, of Prof. Davenport as a critic of Marshall arise, not so much from an absence of understanding of Marshall's writings, as from a too literal interpretation of them: the shortcomings are the direct result of the assumption that scientific exactitude in exposition is the *sine quo non* of any thesis to be accepted as containing economic truths. Just as the wheels of an engine glide along the rails even at its topmost speed, so does Davenport's relentless reasoning follow the tracks set by Marshallian phraseology. To escape from the narrow orbit set by Marshallian phraseology—to attempt to guess what was at the back of Marshall's mind as distinct from the confusing ideas sometimes reflected by a strictly logical interpretation of his writings—seems to be too much of a task for so meticulous a reasoner as Davenport.

No doubt, it is a perilous enterprise to suggest, much more to establish that a great writer meant something different from, or at any rate, something more than what he actually wrote. But the path of wisdom lies neither in discrediting Marshall to the extent of discarding his writings as entirely valueless on the ground of lack of scientific accuracy, nor in claiming that liberties in language are as much the privilege of great economists as of great poets. It should be the duty of the disciples to rectify terminological inexactitudes in the writings of the master

1 Reference is to the, 'Note on Consumer's Surplus' on page 101 of the book.

and to invest them with the dignity of scientific exposition to the best of their ability.

Viewed in this light, some precious ideas may yet be rescued from the general wreck wrought by the vigorous criticisms levelled against the theory of consumer's surplus.

Obviously, the definition of consumer's surplus as the difference between the sum which measures total utility, and that which measures exchange-value, is untenable, for the simple reason that there can be no common unit, real or imaginary, which can measure two unlike things as utility and exchange value. To attempt to measure utility and value by the same standard is somewhat like trying to measure volume and weight by the same standard of measurement. As Davenport points out, it is to ignore the distinction between utility and price, or as I would prefer to say, to ignore the distinction between utility and value. Marshall is talking of price-surpluses, when he seems to have utility-surpluses in mind, and ought to talk about the utility-surpluses. Consumer's surplus seems to be intended as a monetary measure of the surplus of utilities. But Marshall never identifies the two. He is always careful to refer to consumer's surplus in terms of money and not in terms of utilities. Thus he says, 'consumer's surplus is 6 sh.,' (p. 126, lines 1 to 2), and, 'consumer's surplus is 45 sh.,' (p. 127, line 14).[2] He does not say that consumer's surplus is represented by or indicated by 6sh., or 45 sh.

He says, however, "The excess of the price he would be willing to pay rather than go without the thing, over that which he actually does pay, is the *economic measure* of this *surplus satisfaction*," (p. 124). It is, therefore, clear that the central idea at the back of Marshall's mind is not so much the excess amount an individual might have paid, but the surplus of utilities or satisfactions which an individual derives from his purchase as compared with the sacrifice involved in paying for it. The calculation of the potential or hypothetical excess is only an attempt on the part of Marshall to give the surplus of utilities mathematical exactitude in monetary terms, and in this attempt Marshall seems to have failed. None the less, as Taussig points out, who can deny the existence of a surplus satisfaction in most of our daily purchases? (p. 129).[3] All the criticisms so far levelled against the theory of consumer's surplus cannot invalidate the reality of this experience on the part of consumers.

[2] Page references are to the eighth edition of Marshall's Principles of Economics.

[3] References are to Volume I of Taussig's Principles Third Edition Revised.

In what form, then, can this Marshallian idea of a surplus satisfaction be given at least theoretical exactitude? As has been pointed out, the difficulty arises in comparing two unlike things as total utility and exchange-value. This difficulty will disappear if instead of exchange-value we take something similar in quality to total utility, and at the same time equivalent to, but not identical with, exchange-value. This is obtained by multiplying marginal utility with the number of units purchased. The difference between total utility and this sum obtained by multiplying marginal utility with the number of units, may be termed the *Marginal Surplus of Utilities.*

It is not merely in Marshall's discussions that we find implicit this concept of Marginal Surplus of Utilities. Except for the name, this concept is to be found in its entireity in Wicksteed's brilliant discussion on Diminishing Psychic Returns. Towards the close of the discussion he states, ". . . . if our supply consists, for example, of ten units, its total significance will be greater, and may be enormously greater than *ten times* the significance of the marginal unit." Wicksteed uses the term significance practically in the same sense as we use the word 'utility.' It is thus obvious that he is comparing the total utility of ten units with *ten times the utility of the marginal unit*, and he finds there will be a difference, sometimes an enormous difference between the two. It is this difference that has been termed the Marginal Surplus of Utilities.

How confusing the Marshallian concept in its existing form has been to many minds, will be clear from the fact that even such an eminent adherent as Prof. Taussig, in discussing the theory has made it more defective than it is in Marshall's exposition. Taussig takes the example of an individual who buys five oranges at a uniform price of 5 cents each (p. 125). He then conjectures the maximum demand prices for the 5 oranges, when they are offered in succession one by one. The individual, he says, might have paid 50 cents for the 1st, then 25 cents for the 2nd, then 15 cents for the 3rd, 10 cents for the 4th, and ultimately the same 5 cents for the 5th orange. There is, however, absolutely no justification to assume that the individual would pay the same 5 cents for the marginal unit, *i.e.*, the 5th orange under the widely differing systems of purchase. There must be much difference between the effective demands of the same person under widely differing economic conditions. In one case he spends only 20 cents for the first four oranges; in the other case he has to spend 100 cents for the first four oranges before thinking of the 5th orange, and granting that he really does pay

the 100 cents for the first four oranges offered in succession, does it follow that, after spending so much, he would still be offering exactly the same 5 cents for the 5th orange as previously when he had more funds (80 cents more) with him? In practice, it would be found that the uniform market price, at which an individual buys, represents, not the demand price of the last unit under the system of successive unit offers at maximum potential prices, but the demand price of a unit many stages prior to the last unit. Thus if a man buys 10 oranges at 1 anna each, under the system of successive unit offers at maximum potential prices 1 anna may be the price of the 6th or even the 5th orange, and not certainly of the 10th or marginal orange. It is, therefore, impossible to calculate the consumer's surplus by adopting this procedure.

Wicksteed's brilliant discussion of the relative scale of prices is marred by a similar error in the calculation of the consumer's surplus.

It is noteworthy that Marshall takes special pains to avoid such a serious error in his exposition. Consequently with all its defects, his calculation of consumer's surplus gives us a true function of the Marginal Surplus of Utilities. The existing criticisms will lose much of its force if a few words are added to the definition given by Marshall, *viz.*, "the prices paid for other commodities remaining the same." This is probably what Marshall means when he states (p. 131, last para), "It will be noted, however, that the demand prices of each commodity on which our estimates of its total utility, and consumer's surplus are based, assume that *other things remain equal,* while its price rises to scarcity value." Only on this assumption can the Marshallian procedure of calculating the consumer's surplus of a commodity, taken by itself, have any meaning. Further, in this sense, the concept is more true to life. For when we ask of an individual, how much more he would have paid rather than forgo the use of a particular article, his answer is based on the assumption, that there would be no variation in the prices he would have to pay for all other commodities.

Viewed in this light, the criticism of Davenport (and also of Nicholson) is found to be devoid of any content. It is contended that in accordance with the Marshallian procedure a man with a £100 income can walk away with a consumer's surplus of £1000. Consumer's surplus means what a man might have paid in excess of what he actually pays. But, how, asks Davenport, can a man with only £100 spend anything more than £100, not to speak of £1000, whether he be in England or in

Africa? How could a man under any circumstance pay anything more than his total resources? Marshall's explanation, though suggestive enough, does not fully clarify the issue. The criticism is based on a false assumption. It is supposed that when a man spends £100 on different commodities, we can add up the consumer's surpluses in the different commodities, and thereby get the consumer's surplus for all the commodities taken together. It is in this sense, that Davenport and others speak of a man with £100 walking away with a consumer's surplus of £1000. *But there is no such thing as a consumer's surplus for all commodities taken together.* It is simply a contradiction in terms. In conceiving of the consumer's surplus for any one commodity, Marshall assumes as a necessary condition that "other things remain equal." The supposition and calculation of the consumer's surplus for any one commodity, therefore, automatically veto the supposition and calculation of the consumer's surplus for any other commodity or commodities. Thus if the £100 is being spent on three commodities, A, B and C, we assume when we calculate the consumer's surplus for A, that other things remain equal, that is, the prices which the individual would have to pay for B and C, would remain at the normal. Similarly when we calculate the consumer's surplus for B, we assume that the prices to be paid for A and C would remain unchanged. So also, prices of A and B are assumed to be the normal when calculating the consumer's surplus for C. Thus, when we think of the consumer's surplus for A, B and C, all taken together, we automatically assume that the individual would not pay anything more than the normal prices for either A, or B, or C. Trying to calculate the consumer's surplus for all commodities, taken together, is like trying to please one's guests by offering every one of them at the same time the first seat.

Is it of no use, then, to add the consumer's surpluses in different commodities? It may be of use, provided the limitations of the procedure are clearly understood. The aggregate sum, so obtained, is not certainly the sum which the individual would have paid in excess rather than forgo the use of all the commodities he has purchased. It is purely an arithmetical summation, which, however, has the merit of reflecting the real surplus we have in mind, namely, the Marginal Surplus of Utilities. No doubt, the Marshallian procedure of reflecting the marginal surplus of utilities, through such a price mechanism, may have its shortcomings. But it seems to be the only method open to us to get even an approximate idea of the surplus of

utilities which we enjoy in our different purchases, and till better methods are discovered, we have to regard it as one of considerable importance. In the realm of public finance, it is universally agreed that material possessions like income, capital, etc., form an imperfect data to judge an individual's ability to pay. But all the same, we do not hesitate to fix the tax a man has to pay by such objective considerations. In the same manner, it is possible to conceive that this peculiar method of reflecting the marginal surplus of utilities may have its own use.

The Doctrine of Dynamic Satisfactions.

It is sometimes suggested that the best justification for the Marshallian concept of consumer's surplus is the existence of a feeling of psychic surplus of satisfactions on the part of consumers. But this psychic surplus has very little in common with the consumer's surplus. For it is due to the difference between the price actually paid by the consumer and the price that the consumer considers to be a *just and proper price*. What the consumer considers to be a just and proper price is very rarely the price he might have paid rather than forgo the use of the commodity concerned. Thus in the example given by Taussig an individual might pay 50 cents for the first orange rather than not buy it; but, on that ground, nobody would claim that the consumer would consider 50 cents a just and proper price. Under certain conditions, we might pay for several things prices much higher than what we consider to be reasonable and just. These prices, therefore, cannot be taken as standards for measuring the feeling of psychic surplus.

The factors which determine a man's estimate of a just and proper price must differ from person to person and may be different for the same person under different circumstances. In fact these factors are indeterminate and variable. Psychological problems are not capable of being reduced to economic terms. However, there seems to be an important principle relevant to the issue, which is very often overlooked in such discussions. Satisfactions are dynamic. The psychological effects of satisfactions derived from the initial doses tend to be obliterated to an appreciable degree by final doses. When we have finished a meal the final satisfaction derived from the same is more influenced by our satisfactions from the last few morsels rather than from the previous ones. That is why the rich man who might have paid a thousand pounds rather than forgo his meal does not feel that he has derived a psychic surplus worth £1000

after finishing his meal. That satisfactions are dynamic is implicit in most of our arrangements. There is a particular order in which we take the several items in a feast. Change the order, and the total satisfaction will be less. Take a bitter thing and a sweet thing immediately after; then reverse the order. You find a difference in the final satisfaction. Change from the city to the village. You get a psychic surplus in many things, particularly house-room. Change from the village, in which you have been residing for long, to the city. You may experience a psychic loss of satisfactions in many of your purchases. Applied to one and the same commodity, the doctrine of dynamic satisfactions leads us to an important conclusion. We are all more conscious of the satisfactions derived from the marginal units compared to the non-marginal units. Further the realisation or the consciousness of the actual utility of a particular portion of a commodity is better the nearer it is to the marginal unit. The volume of utilities not consciously experienced is much greater in the case of necessaries than in the case of luxuries and comforts. In other words, both in the case of necessaries and luxuries, a large part of what has been termed the marginal surplus of utilities is not consciously felt. But in the former case what is not consciously felt forms a very large proportion; in the latter case not such a large proportion. Hence in the former case, *i.e.*, of necessaries, consumer's surplus appears to be elusive; in the latter case real. As a matter of fact, conceived as a purely psychic problem consumer's surplus is elusive to a certain extent for all commodities without distinction. The idea may be made clear by an example. It is known that the longer the distance, the lesser the trustworthiness of the human eye. Now a man standing on the top of a hill may look at a hamlet two furlongs off on one side of the hill, and then turning to another side look at another hamlet two miles off. In the former case he thinks he sees everything distinctly; in the latter case only very vaguely. On that account we cannot say that his eyes were all right when he was looking at the first hamlet, but that they became suddenly defective when he turned them in the direction of the second hamlet. In a similar way, it is incorrect to say that consumer's surplus is all right when applied to luxuries, but that it is elusive when applied to necessaries. For the ability to be conscious of the exact volume of utilities is greater, (1) when the units concerned are nearer the margin, and (2) taking a commodity as a whole, when the total utility is comparatively limited as in the case of luxuries and comforts.

It would be clear from the foregoing discussion that the psychic feeling of surplus is very rarely identical with the marginal surplus of utilities. The relation between the two is analogous to that between the tax burden and the feeling of the burden of the tax. Thus when a man is taxed in the dark, he may not feel the burden of the tax at all. But all the same, the burden exists. On the same ground economists have refuted the doctrine that 'an old tax is no tax.' If in public finance we can distinguish between the existence of a burden and the consciousness of the burden, on the same lines we can distinguish between the existence of the marginal surplus of utilities, and the consciousness of this surplus. And just as the tax-burden is more important than the consciousness of the tax-burden, so too, the consideration of the marginal surplus of utilities seems to be of greater importance in economic theory, than that of the purely psychic feeling of surplus.

It may be asked, of what use is it to make such modifications and invent new terms. Marshall's words may be quoted by way of an answer. "For in this as in other cases, the apparent simplicity of popular phrases veils a real complexity, and it is the duty of science to bring out that latent complexity, to face it, to reduce it as far as possible, so that in later stages we may handle firmly difficulties that could not be grasped with a good grip by the vague thought and language of ordinary life . . . . The use of technical terms at starting adds nothing to knowledge; but it puts familiar knowledge in a firm compact shape ready to serve as the basis for further study."

ECONOMIC CONDITIONS IN THE BOMBAY KARNATAK AND THE PLACE OF CO-OPERATION IN THEIR BETTERMENT

BY

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The Bombay Karnatak is favoured by nature to a large extent (except in case of some parts) in that it has, in general, good soils, healthy climate, fairly regular rain and a large population with fair intelligence. It has got crops and markets dating from historic times with roads connecting the different parts, has some good navigable rivers, has large mountain ranges and rich forests. These gifts of nature should naturally have placed the Karnatak in very good economic condition and made these parts happy and prosperous. The question whether this is so does not, however, bring out a strong affirmative reply. We have to study different factors to know the problem fully.

The Karnatak, in keeping with the rest of the Presidency, and of India, as a matter of fact, is rural in nature and agriculture is its main industry. The Bombay Presidency covers within its limit 21,668 villages and the Karnatak has 4,810 of them. Population of the Karnatak has, during the last 50 years, grown at a rapid pace and it has nearly doubled itself within the last 50 years between 1881 to 1931. In the words of an eminent economist "Population is an asset in any civilised country but in India, it has become a curse." Though this may have a little inclination towards exaggeration it has to be admitted that without proper means to engage and feed the growing population, mere numerical strength cannot be a proud achievement.

Taking on an average the incomes derived by the earning population of our parts one cannot say that we are affluent since

40 per cent of the population have an average annual income of below Rs. 75.

Another 40 per cent have between Rs. 75 and Rs. 175.

14 per cent have between Rs. 175 and 325.

And about 6 per cent earn Rs. 325 and over.

The first group naturally is under heavy debt. If we go into further details we find that

70 per cent of our population depend on agriculture.
10 per cent on industrial activities.
7 per cent on trade.
4 per cent on liberal professions.
1 per cent in other activities, while the rest of the population, that is approximately 8 per cent, are mere dependants or hangers on. In this class can be included religious and other mendicants, beggars and incapables.

As an industry of prime importance with us, agriculture commands the first place of study. For successful agriculture, we need good soil, due amount of rain, proper seed and implements and the right kind of labour. Soil, climate and rain being factors beyond direct human control, labour and seed fully deserve calculating. The Agricultural Department has been doing very valuable service in the evolution and spread of good strains and types of crops. Thus the improvement of cotton, *jawar*, paddy and sugarcane is a great step forward.

With land of proper quality and other conveniences, labour and capital must be of prime importance, and labour or the human factor of these two deserves particular attention. By a study of the Census figures it is seen that the percentage of agriculturists to the total population roughly tallies with that of illiterate persons, and without any great departure from truth, it can be asserted that agriculture is carried on mainly by the illiterate sons of the soil; and it is on this account that agricultural improvements have not been widely understood and readily taken up by the average agriculturist of our part. As a result of this, coupled with the lack of finance the agriculturist has not been able to reap the best out of the land. The comparative figures of our crops with those of some other countries in the world show that we grow per acre only half of the quantity of wheat that is grown in Japan and Egypt, and that the yield of our rice per acre is half of what is grown in Italy and one-third of what the Japanese farmer reaps. The yield of cotton per acre with us is only a third of the produce which the Egyptian grows on an equal area.

The Karnatak mainly grows dry crops, that is, crops depending chiefly on rain. Well irrigation is un-economic in some of our districts because of the depth at which it is available, while

canal irrigation is had to a very small extent. It has been calculated that only 15,000 acres of land have canal water while 20,000 more can have it with canals duly constructed. The general dependance of agricultural produce on rain water is responsible for making our agriculturist more inert and less progressive than his brother in areas with better natural resources, *e.g.*, Gujarat.

The Karnatak agriculturist has, at least for the present, to depend for his agricultural operations on bullock power and the presence of good cattle is most necessary to him. It cannot, however, be claimed that any special progress has been made in the direction of fixing upon and increasing special breeds here and all good cattle have been mostly imported from the State of Mysore on the one hand, and the states of Sangali and Miraj on the other. It has been proved in recent years that breeding of good cattle is possible in the Karnatak by crossing the country cows with bulls of special breeds particularly the Amrit Mahal. Cross-bred cattle gradually inherit qualities of the superior breed and get naturalised in the course of a few generations. Thus, the lessons of the Government Cattle Breeding Farm at Bankapur are taken by the agriculturists of the neighbouring Talukas, while Krishna Valley bulls have been responsible for improved cattle in Sadalga and other centres of the Belgaum District. These attempts have been doubly beneficial in that the agriculturists in these centres have not only been saved the trouble of getting cattle from outside but are themselves able to put their calves and bulls on the market and thus add to their income. Cattle breeding has begun to pay as a subsidiary industry. The numerical strength of our cattle in the Karnatak is at present approximately 30 lakhs of heads of which 7 lakhs are milch-cattle, 8 lakhs draught cattle and the rest do not yield either milk or labour. The agricultural needs demand a larger number of cattle and these have to be better than those found on an average.

It has been recognised by authoritative writers that the pressure on land is excessive which means that our agriculture at present engages more people than could profitably attend to it. It is further known that the agriculturist works on the land for 180 to 240 days in the year, and has no work for the rest of the period. The question then is what should be done with the extra portion of the agricultural population and how are the agriculturists to engage themselves during periods of slack work.

Garden crops, fruit growing, cattle breeding, sale of eggs and butter are some of the subsidiary industries suggested for

the agriculturist since he can follow them without much effort or the possibility of neglect of his main industry, *viz.*, agriculture. The importance of fruit culture is well described in a recent publication in the following words "He (the agriculturist) does not know that the shining yellow santras which hang uncared-for in his compound fascinate the eye of the visitor in the Crawford or Reay-Market. It will be a surprise to him to know that the Popaya chequered with patches yellow and green which he feeds to his cattle goes for a silver coin in the city nearby. He will not believe that the mangoes which run to waste in thousands at his door have become the craze of the world." The figures for the garden cultivation show that the Karnatak has 60 thousand acres under fruit cultivation. There is room, according to authorities, for fruit cultivation to be extended to a large extent.

It is proper here to look into some industries which have been in existence in the Karnatak long since, and deserve to be encouraged and some others which await introduction.

Next to agriculture weaving is an important industry which has been in existence with us from very old time. The hand-loom industry is, however, not in a flourishing condition at present due to external as well as internal competition. The mills have, in recent years, manufactured many articles which attract the buyers by their variety and cheapness. The first mill produce which ousted the country production was the 'Dhoti.' Then came shirting and clothing cloths. The hand-woven sarees too have gone in the background because the power looms have put on the market sarees at cheaper rates while pattals from the mills have taken the place of sarees in many a household. The relation between spinning and weaving was long intimate and these were practically complementary occupations. Yarn is now secured by the weavers mostly from the mills. Leaving cheapness apart, hand-woven cloth is still regarded as more durable and a large portion of our population is still inclined towards it. It is on this account that hand-loom weaving is at least alive as an industry to-day. Hand-spinning can serve as a secondary industry and is particularly convenient for the old and infirm.

The manufacture of brass and copper utensils is another important industry in the Karnatak. These vessels are in very common use. This industry has not so far faced much competition because of

(1) The inconvenience of transport due to different sizes of vessels,

(2) Cheap availability of the raw materials.

(3) Greater liking or partiality of the users for local manufactures.

(4) The vessels fetching some price on getting old and going out of use.

Earthenware industry, husking of rice, oil pressing, minor iron manufactures and carpentry are some other industries that are carried on in many centres of the Karnatak by the small workers. There are, in a few centres, some artisans who carry on the manufacture of toys and dolls, mats, and baskets, carpets and *gudars* and carving in sandalwood and ivory. These artisans maintain traditional skill of their forefathers, and some extremely fine workmanship is in evidence by the special class of workers such as the toy-manufacturers of Gokak and Gudigars of Kumta and Honnavar. So too, the coir-works of North Kanara, carpets of Navalgund and glass-bangles of Ghodgeri are widely known and highly popular.

It is of wide knowledge that the agricultural industry, and every industry in general, finds it necessary to tide over periods of financial stringency and that money has to be found to afford temporary accommodation at certain stages. Thus the average agriculturist seeks short-term finance for his agricultural operations, the weaver looks for aid for the purchase of raw materials and the small manufacturer or the trader has to find means to fall back upon when the season is slack. Considering the sources of finance the private moneylender holds the strongest position since he supplies 91 per cent of the finance, the co-operative movement supplies 8 per cent and Government only 1 per cent of it. When the period of temporary need is over and the agricultural produce and the articles of manufacture are on hand there is usually a glut in the market and the producer hastens to sell, thus becoming a victim to competition, either from his brother-worker, the Mill or the importer. To enable him to hold on his produce and to sell it at more favourable times, financial as well as trading conveniences have to be provided. With these two aspects of financial conditions must also be considered the need of saving that can be effected by the purchase of requisites, agricultural or domestic, at proper prices. It is the practice of every householder generally to buy these requirements singly and in small quantities which results in imperceptible but steady loss to which he is subjected.

A system or movement which has been rendering some help in this direction and which can still widen its scope is the

Co-operative Movement. The first and the foremost need of the average agriculturist and the small trader of the town or village, *viz.*, finance, has been made available by the credit movement. The Karnatak including the four Kanarese Districts is presently served by 1210 societies in all, of which 913 are rural agricultural credit societies, and 139 are urban credit societies (including urban banks). The total membership of rural credit societies stands at 62,943 while the urban credit movement has within its fold 43,000 members of various trades, occupations, castes and creeds. Adequate and timely finance is made locally available by these institutions to their members and this is useful for productive purposes. The total working capital of the rural credit societies stood on 30th June 1937 at Rs. 78,69,278 and the urban credit movement commanded a total working capital of over 97 lakhs in the four Districts together. The Reserve Fund built up by the rural and urban credit societies respectively stood at Rs. 22,70,648 and Rs. 10,12,749.

The non-credit aspect of co-operation, whether in the rural areas or in the urban parts, has been of importance since non-credit transactions are extensive and the realisations appreciable. Cotton Sale, Gul Sale, Chilli and other sale organisations which are run on co-operative lines have been securing to the agriculturists not only the direct benefit of proper prices but also the benefits of good seed, proper handling, etc. Cattle Breeding Societies of which there are 14 in the Karnatak have been helpful in securing locally improved cattle and securing to the agriculturists the supplementary income derived by the sale of the extra cattle. By the protection of crops which has been possible through the Fencing Societies and Gun-Clubs, the Co-operative Movement has enabled the Mallad agriculturist to save his crop from the depredations of wild animals. The urban non-credit movement concerns itself with weaving, shoe-making and other industries. There are a number of weavers' societies which aim at securing raw materials jointly to their members and effecting sales of their finished articles to proper advantage. Some of the hard-hit industries including hand-weaving have been showing tenacity and life due to their intrinsic importance and they look to co-operation with hope.

In affording due amount of finance to the primary societies and other banking facilities, the District Central Banks have been very helpful and our Karnatak has four of them one for each District. Their membership, working capital and Reserve Fund are large and each of these Banks has maintained from 2 to 8

Branches in the Districts so as to afford greater convenience to affiliated societies. The educative activities and instruction to societies have been taken up and conducted by the Branches of the Institute while the various Supervising and Guaranteeing Unions offer to societies in their jurisdiction the help of internal supervision and guidance.

In short, the co-operative movement has brought about financial betterment in a large number of cases and it can, in addition, claim credit also for social improvement and administrative teaching. These are evidenced in the day-to-day routine of societies and banks, and the gatherings of co-operators wherein people of different castes and creeds meet with a sense of equality and fraternity brushing aside social inequalities of any kind.

Reverting to economic aspects, it may be observed that the co-operative movement has made available to its members the large sum of over 2 crores and 60 lakhs of rupees. The fact that this amount is available at very reasonable rates of interest (which has in its turn brought down the general lending rate) and that this amount is made up to the extent of nearly one-third by the capital owned by the societies and includes nearly an equal amount in the form of Reserve Fund justifies co-operative effort. The Reserve Fund, which is entirely an outcome of the annual savings and serves as a great resource to fall back upon in times of need and stress, speaks of the thrift that is encouraged amongst the members.

The Bombay Karnatak, it is calculated, is capable of widening its productive activities in a number of ways and also developing its trade and commerce duly; and it can be said with confidence that the co-operative movement can well play its part in these developments provided that everyone is imbued with the right ideas of the movement, a firm faith in its virtues and a sense of responsibility and fraternity so well expressed by the adage.

"EACH FOR ALL AND ALL FOR EACH."

THE EVOLUTION OF DECENTRALISATION IN INDIAN FINANCE (1833—1882)

BY

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§1. Centralisation and Its Defects, 1833—1870.

The year 1833 is an important landmark in the history of India because the Charter Act of that year radically changed the character of the Government of India by introducing a high degree of centralisation in all matters—executive, legislative and financial. Thus, the Imperial system of Government in India had its origin in that year.

The Governor of Bengal was made the Governor-General-in-Council and in him were vested the exclusive legislative powers to make, amend or repeal any laws or regulations for the whole of the territory.[1] He was entrusted with the superintendence, direction and control of the whole civil and military government of the territories and revenues of India.[2] Thus a full-fledged Imperial system was established in India.

The Imperial system of Government necessarily implied an Imperial system of Finance. Before 1833, the Presidencies were independent in their finance. Each had to maintain services which were needed for peace, order and good government within its territory and was free to find money by taxing the people according to its own sweet will or by borrowing, as the occasion required. But the Act of 1833 changed all this. All the revenues in all parts of the territory began to be collected in the name of the Central Government and all expenditure began to be made in the name of the same body. All the debts which had been hitherto incurred by the Provinces became the debt of the Government of India.[3] This centralisation was so

1 See sec. 43 of 3 and 4 Will. IV, C 85, and Act for effecting an arrangement with the East India Co. and for the better government of His Majesty's Indian territories.

2 See sec. 39, 3 and 4 Will. IV, C 85.

3 See Ambedkar : *Provincial Finance in British India*, p. 8.

thorough that "no province had any separate power of legislation, any separate financial resources, or practically any power of creating or modifying any appointment in the Public Services, and the references to the Government of India which this last restriction involved gave that Government the opportunity of interference with all the details of provincial administration."[4]

The consequences of this change were simply disastrous and they began to manifest themselves from the very beginning. The following were the main defects of the system:—

Firstly, everything was rigorously centralised in the Supreme Government. "It controlled," wrote the Strachey Brothers, "the smallest details of every branch of expenditure, its authority was required for the employment of every person paid out of public money, however small his salary, and its sanction was necessary for the grant of funds even for purely local works of improvement, for every local road and every building, however insignificant."[5] Due to this rigid control, even the ablest provincial administrators found themselves helpless and it intensified their sense of bitterness."[6]

Secondly, the Central Government found itself woefully unequal to the task imposed upon it. Really we cannot expect much efficiency from an Imperial system of finance in a country with such continental dimensions as India. Due to the absence of an adequate machinery for supervising the Provinces continuously and effectively, the Provinces remained uncontrolled.

Thirdly, "the system had all the defects of the joint-family system without its redeeming features. The sense of community of interests was conspicuous by its absence, there was irritation and heart-burning, and the beneficiaries of the arrangement were not the weakest units of the political organization."[7] The

[4] *The Royal Commission on Decentralization in British India Report*, p. 24.

[5] Sir John and Sir Richard Strachey : *The Finances and Public Works of India*, p. 134.

[6] See Banerjee : *Provincial Finance in India*, p. 14.

[7] Gyanchand. *The Essentials of Federal Finance*, p. 34.

Provinces demanded as much money from the Centre as they needed without any consideration of the needs of other Provinces or of the country as a whole. The Central Government did not possess the local knowledge which would have enabled it to judge the validity of those demands and to distribute funds between the Provinces equitably. The result was that 'the distribution of the public income degenerated into something like a scramble, in which the most violent had the advantage, with very little attention to reason.'[8] There was no fixed or intelligible guiding principle in the distribution of funds among the Provinces according to their true and genuine needs.

Finally, the Provinces tended to become extravagant and uneconomical. Before 1833, they had to find a source of revenue for every pie that they spent. Naturally they were very economical. But under the new system, they simply prepared their budgets and the responsibility for finding the ways and means rested on Imperial Government. They had a purse of unknown depth to draw upon. Experience taught them that the less economies they made, and the more importunate their demands, the greater chances were there to convince the Central Government of the urgency of their need.[9] Ambedkar very beautifully sums up the position. Says he, "The Act of 1833 made an unfortunate divorce between the legal and administrative responsibility. The Imperial Government was responsible in law but did not administer the country. The Provincial Governments administered the country but had no responsibility in law. This divorce had a fatal effect on the economy in the finances of the country."[10]

With the passage of time, these defects became more and more glaring and had a reflection on the financial position of the country. Deficit budgets were faced from the very beginning.

8 General Strachey. A sentence which is very often quoted.

9 See *The Administration of the Earl of Mayo, as Viceroy and Governor-General of India*—a Minute by John Strachey. 1872.

10 Ambedkar, *op. cit.*, p. 24.

From 1834-35 to 1857-58 (24 years), deficits occurred in 17 years, only 7 years showing surpluses. Disraeli remarked:—

> "Able as has ever been the administration of India, considerable and distinguished as have been the men whom that administration has produced, and numerous as have been the great Captains, the clever diplomatists and able administrators of large districts with whom the Government has abounded, the state of the finances of India has always been involved in perplexity, and India that has produced so many great men, seems never to have produced a Chancellor of the Exchequer."

In 1858, the Government of India was transferred to the British Crown. It did not in any way modify the control of the Central Government over the Provincial Governments. Rather the tendency to centralisation began to stiffen. As railways and telegraphs were extended throughout the country, the central control became more direct and rigid.

After the transfer, the Central Government made serious efforts to balance the budget and began to practise economy and retrenchment. The Provinces disliked these measures which stood in the way of the carrying on of their own pet projects of provincial development. The Imperial Government, on the other hand, suspected that the provincial satraps were clamouring for money only to add to their own importance.[11]

§2. The First Step Toward Decentralisation.

THE MAYO SCHEME: BUDGET BY ASSIGNMENTS.

(1871—1877).

By this time it became as clear as pike-staff that the system of "barren uniformity and pedantic centralisation" was entirely unsuited to such a vast country as India.

The Government of India became convinced that it was inefficient and unable to control and carry out works of material benefit to the country.

The Provinces, its spending agents, demanded money for the developmental works in increasing amount, without any regard to economy. The Central Government could not judge the validity of the claims and met those claims. The result was

[11] See K. T. Shah, *Federal Finance in India*, pages 85-86.

huge budget deficits at the Centre. The only remedy which could equal the malady was the inauguration of Provincial Budgets. Lord Mayo proposed that such matters which the Imperial Government could not control due to its supreme ignorance should be transferred to the Provincial Governments. To defray the cost of these charges, the Provinces should be given the receipt arising from the incorporated services, *plus* a fixed assignment from the Centre. The actual provisions of the scheme were contained in the famous Financial Resolution of December 14, 1870. The following heads of expenditure, *viz.*, jails, registration, police, education, medical services, printing, roads, civil buildings, were made over to the Provincial Governments. To meet the above charges, the Central Government surrendered to the Provinces the receipts accruing from these services with an additional assignment from the Imperial fisc to bring about an equilibrium. The total sum so assigned amounted to Rs. 4,68,87,110 and was to be distributed among the Provinces in proportion to their needs as shown by the actual expenditure in 1870-71. If the departmental receipts and the annual lump-sum grants proved to be inadequate, the deficiency could be made good by local taxation. Each Provincial Government was given full freedom of expenditure as regards the lump sum made over to it. If it was successful in effecting economies and to have any surplus in its budget, this surplus was to be placed to its credit with the Government of India.

It may be mentioned here that the total amount assigned to the Provinces was about 7 per cent less than the amount that had been spent for these purposes in the last year of the old system. This measure was calculated to give relief to the Central Budget to the tune of £1,000,000. But soon the Imperial Government realised that this retrenchment would necessitate some taxation by the Provincial Governments which would increase the burden of taxation which had already considerably grown since the Mutiny. Hence the relief originally fixed at £1,000,000 was reduced to £350,000.

It would be quite relevant to ask here why the departmental receipts were handed over to the Provincial Governments. It was, firstly, in conformity with a canon of good finance that tax administration and tax appropriation should go, as far as possible, together. The second reason was that the scheme aimed at making the Provinces more economical in their finances and one of the ways of doing it was to give them the receipts of the services they managed. As these departmental receipts were not likely to be sufficient for the purposes of the Provinces they

were given assignments from the Imperial fisc, which also could be supplemented by local taxation, if necessary.

In order to examine whether the scheme was actually successful, we should consider the views and positions of the Government of India and of the Provincial Governments, the two principal parties to the scheme. "Naturally their standpoints were different, if not antagonistic. The question prominent in the mind of the Government of India was how big was the gain to the Imperial treasury on the transfer. On the other hand, the Provincial Governments were concerned to know whether the resources offered by the Government of India were adequate enough for their safely accepting the responsibility of managing the incorporated expenditure. It is obvious that the Provincial Governments would not undertake the responsibility of managing the Imperial expenditure within a certain assignment unless they were sure that the assignments were adequate. Similarly, the Imperial Government would see no advantage in making the transfer unless the Provincial Governments undertook to manage the expenditure at a sum less than what it cost under the direct management of the Imperial Government. Adequacy to the Provinces and gain to the Imperial treasury were, therefore, the two chief considerations which prevailed in the determination of the continuance and expansion of the scheme."[12] And these two objectives were really achieved in actual practice. The provinces had magnificent surpluses in most of the years. There were some deficit years as well but these deficits could be very easily offset by the surpluses. As to the Central Government, we have already seen that it made a direct gain of £100,000 per annum, later reduced to the tune of £350,000.[13] Thus apparently the Mayo Scheme was successful in achieving its ends. Another point in favour of the scheme was that it put a period to the vexatious policy of interference by the Imperial Government in every minute detail of Provincial expenditure. For a moment, at least, the old friction vanished, but only temporarily. Because as the basis of allocation of assignments rested on old inequalities, the Provinces soon became very much dissatisfied.[14]

12 Ambedkar, *op. cit.*, pp. 68-69.

13 If we take the special assignment of £19,199 given to Burma, this amount drops down to £330.801.

14 See Banerjee, *op. cit.*, pp. 78-79.

The Governor-General-in-Council expressed his belief that the new system would bring about many benefits. The main advantages expected to be realized were the following:—

(1) The Provinces were expected to find adequate funds for developmental purposes.

(2) It would produce care and economy in public expenditure.

(3) It would impart an element of certainty in the fiscal system as fixed lump sums will now take the place of uncertain annual grants.

(4) It would make the relations between the Central Government and the Provincial Governments harmonious, and the conflict of opinions due to ill-defined character of the division of responsibility would be avoided.

(5) Finally, it was expected that the operation of this scheme " in its full meaning and integrity would afford opportunities for the development of self-government, for strengthening of municipal institutions and for the association of Natives and Europeans to a greater extent than heretofore in the administration of affairs."

Apparently, the anticipated benefits were magnified to no small extent. A mere change from annual assignments for each department in the Provinces to fixed assignments for the transferred services could not have possibly realised all these benefits.[15] Nevertheless, this measure brought about a considerable and welcome step in financial decentralization.

Sir Richard Temple, however, said: "The hopes which I am expressing, however sanguinely or confidently entertained, are after all but hopes, and like all other hopes may or may not be fully realized. But let all this eventuate as it may, sure I am, with certainty free from the shade of doubt, that the measure is advantageous to the Imperial budget of British India. For it will have the direct effect of definitely limiting for the present, the expenditure from the general exchequer on certain important branches of civil expenditure, the very branches indeed, where, in the progressive state of the age, the demands for the increased outlets have arisen." The other hopes, unfortunately, were not

15 Gyanchand, *op. cit.*, p. 35.

realised but the expenditure on subjects, for which additional expenditure was needed, was not only limited but actually decreased.

But the Mayo Scheme had many defects and has been criticized on various grounds. Firstly, the Imperial Government kept to itself all the good and expanding sources of revenue while the burden of increasing charges was shifted on to the shoulders of the Provinces. The Provincial revenues from departmental receipts and assignments were inadequate to meet their expenditure. Hence there were only two alternatives before the Provinces: either to starve the local services and reduce the useful expenditure or to find the money by additional taxation. Retrenchment in the transferred departments was, however, not practicable and the provincial taxes were consequently increased which increased the burden on the poor.

Secondly, the settlement of 1871 was based on the actual expenditure of 1870-71 in which year there could not be even a pretence of just distribution of grants between the Provinces. Thus old inequalities were, not only not remedied, but perpetuated and given a static form. Mr. Gokhale said, "The fact is that these inequalities are a legacy from the pre-decentralization period, when the expenditure of different Provinces was determined, not by the resources or requirements of these Provinces, but by the attention that their Governments succeeded in securing from the Central Government, *i.e.*, by the clamour that they made. And when the first step was taken in 1870 in the matter of decentralization, the level of expenditure that had been reached in different provinces was taken as the basis on which the contracts were made, and the inequalities that then existed were, so to say, stereotyped."[16] The assumption that the actual expenditure represented the real needs was baseless.

Thirdly, as the Provincial Governments had practically no direct interest of their own in the revenue collected, they were not sufficiently diligent and vigilant in the collection. Excise, stamps and customs, therefore, were easily evaded by unscrupulous persons. The Provinces were empowered to supplement their income by additional taxation which meant an increased burden on the poor. 'The system put the local governments in this position: that the Government of India tax the rich and we tax the poor, and between us, we tax every one."[17]

16 *The Welby Commission Report*, Vol. I, p. 217.

17 Sir George Campbell, Lieutenant-Governor of Bengal.

The only achievement of the Mayo Scheme was that it created harmonious relations between the Central Government on the one hand, and the Provincial Governments on the other, and, perhaps, made the latter more economical and less wasteful in the expenditure. Thus it achieved its main objective.[18]

§3. The Second Step Toward Decentralisation.

THE LYTTON SCHEME: BUDGET BY ASSIGNED REVENUES. (1877—1882).

In 1877, Lord Lytton took another step in decentralisation with the help of his Finance Member, Sir John Strachey. The operation of the Mayo Scheme made it quite patent that the Provincial management was much more economical than the Central Management. The expenditure upon the services provincialized under that scheme was much less after provincialization than before it. Therefore, Sir John Strachey in his financial statement of 1877-78 expressed his entire satisfaction with the system introduced in 1871 and announced the intention of the Government to carry it further. Some additional services which were local in character or more amenable to local control were made over to the Provinces. The newly transferred services included such things as Land Revenue, Excise, Stamps, Law and Justice, and General Administration. Naturally to defray the cost of these additional services, the Provinces needed additional revenue. Sir John Strachey clearly recognized that this additional revenue should not be given to the Provinces in the form of fixed assignments as was hitherto done. Instead, he desired that some revenues should be assigned to the Provinces. And this for two reasons:

(1) The most glaring defect in the system of the budget by assignment was its rigidity. The assignments made to the Provinces remained fixed, though their expenditure on the services under their control evinced an increasing tendency. To remedy this weakness of the system, he desired to make over to the Provinces certain sources of revenue, the yield of which largely depended upon good management. Thus the Provinces

[18] K. T. Shah, *op. cit.*, p. 88.

would be able to find necessary funds for their increasing expenditure through the good management of the services put under their charge.

(2) Sir John also recognized that when the Provinces had no direct interest in the revenues collected by them, they did not care a fig for checking evasion. But they will begin to do so if they would be allowed to keep to themselves the revenues collected by them.[19]

"It was, therefore, for a double purpose, of augmenting the revenues and of introducing elasticity in Provincial Finance, that Sir John Strachey substituted assigned revenues for assignments as a mode of supply to the provinces."[20] Because of the distinct mode of supply adopted, Dr. Ambedkar calls it a stage of 'Budget by Assigned Revenues.'

The assignments, however, could not be discontinued. In any case some differences were sure to occur, because the anticipated yield of the revenue heads and the departmental receipts was not adequate for defraying the cost of the transferred services. Even if more revenue heads were assigned to the Provinces, it was not possible to make the total Provincial receipts and revenues precisely equal to the Provincial expenditure.

To remedy these defects the Provinces were to receive an adjusting assignment, the amount of this adjusting assignment was fixed by taking into account the normal yield of assigned revenues and their normal rate of growth and its calculation was *prima facie* a very complicated and delicate affair. The Imperial Government reserved to themselves a half share in the net increase in the yield of the Provincial heads of revenue. In case of a deficit, the same authority agreed to bear half the loss. This was a very wholesome provision. Had the Imperial Government taken upon themselves the onus of meeting all the deficits of the Provinces, the latter would have naturally become extravagant and unmindful of increasing their own resources. Similarly had the Centre taken away all the increase in

19 "When the Local Governments feel that good administration of branches of revenues will give *them*, and not to the Government of India alone, increased income and increased means of carrying out the improvements which they have at heart, then, and not till then, was to be had the good administration that every one desired."—Sir John Strachey.

20 Ambedkar, *op. cit.*, p. 81.

Provincial revenue, there would have been no stimulus left to the Provinces for developing their resources beyond the normal.

Thus, the total Provincial resources consisted of

(1) the departmental Receipts;

(2) the yield of the assigned revenues; and

(3) the adjusting assignment.

Assam and Burma were backward Provinces and, consequently, were not admitted to the above scheme. But they were included in 1879 under certain modified terms. Burma was given a share of the land revenue, *plus* a share of the income from forests and export duty on rice and salt, in place of a fixed assignment to meet the Provincial deficit. Assam was also given a share of land revenue and thus the principle of divided revenues was applied to this Province as well. Thus revenues were split up into three classes: (1) wholly Imperial, (2) wholly Provincial, and (3) jointly Imperial and Provincial. This arrangement was more in line with the changes introduced at the next settlement. Madras, under the refractory governorship of the Duke of Buckingham, refused to accept the new settlement, and continued to receive its revenues under the system introduced in 1871.

The system was found quite satisfactory both by the Central and the Provincial governments. The immediate saving to the Imperial Government, as a result of the arrangements entered into with Bengal, the N.-W.F.P. and Oudh, amounted to £101,700, *plus* £44,000 due to normal increases in the transferred revenues. When complete, they were likely to add £400,000 per annum to the Imperial treasury. There was a feeling of considerable satisfaction at the Centre, particularly because this improvement was not a consequence of fresh taxation but of a policy of administrative and financial decentralization.[21] The Provinces also were glad over their independence and they began to try to develop their resources.

However, the scheme was not entirely immune from defects. The assignments caused the usual annual bickerings. The Provinces continued to be careless in the collection of the revenues in which they were not given a share. It "left the Provinces to stew in their own juice, and the problem of the

21 Resolution of the Government of India, March 18, 1878, see Banerjee. *op. cit.*, p. 90.

resultant inequalities did not receive even a passing consideration at the hands of the Government of India. The position at the end of this period, *i.e.*, in 1881-82, was about the same except that the expenditure on the provincial services was definitely lower in 1877-78."[22]

22 Gyanchand, *op. cit.*, p. 43.

THE OPTIMUM POPULATION

BY

G. Raghava Rao, M.A.

I

The term optimum means the best, *i.e.*, best for a certain purpose. Mr. Lindley M. Fraser writes, "By optimum density of population is meant that density which with given technique and natural resources, yields the highest individual or average standard of life."[1] Professor H. P. Fairchild states that it is a state of society in which the population is of such a size as to permit it to obtain its maximum standard of life with the existing combination of Land, and Stage of Arts.

By population is meant the quantity of population, quality being implied.

Quantitative increase of population is not always to be deplored or regretted if the quality improves. Quality of population is as important as quantity. Age, health, skill or literacy, civil condition and sex indicate quality.

Age.

Children and old persons are non-working consumers. The consumption goods of children are different from those of the old and the able-bodied persons. If the number of children increases, the numbers of nurses, teachers, and persons employed for the production of goods required by children increase. Increase in the number of old persons, increases the number of persons required to attend upon the sick.[2] Though the total quantity of population remains constant, changes in age composition affect total production, consumption, income *per capita* and the size of the optimum population.

1 Population, Vol. I, No. II, February, 1934. p. 37.

2 A country with many old persons has a higher death rate and a lower birth rate than a country which has a differently composed population. When most of the people are able-bodied, that is to say, when there are more workers than non-workers, there is very high productivity; though after a few decades, the able-bodied growing old, there will be many non-workers.

Health.

A country which has many healthy persons, has a high productive capacity. More health means more efficiency. The extremely unhealthy, *e.g.*, the blind, leper, dumb, deaf, insane, etc., are not only unable to earn their bread but also require asylums and hospitals to care for them. They are the non-productive agents of society, who are a burden on the rest of the community.[3]

Skill.

By the skill of a person is meant his productivity which can be measured roughly by the nature, duration of schooling and experience which he has had. The unskilled have low earnings and large families. Their descendants cannot rise up easily, because the pressure of poverty is so much that they cannot afford prolonged training for gainful occupations.

Civil Condition.

Usually the married person, having the responsibility of bringing up a family, cannot save enough money to improve his skill considerably, and work as efficiently as the single person. This is more remarkable specially in the case of female. A married woman does not go out for work, unless she is poor. The woman who earns her bread does not in some cases want to marry, thinking that her economic independence would be interfered with.

Sex.

Sex composition also affects the economic condition of the country. The goods and services required by males differ from those required by females. The occupations of the females are often different from those of the males.

Land.

Land means not only the area of the country, but also all its natural resources, *e.g.*, climate, rainfall, fertility of the soil, minerals, etc.

[3] Their birth and death rates are higher than those of the normal population. The infirm generally reproduce the infirm and their birth rate being high, the quality of the population goes down in course of time unless checked by high mortality. Improvement in health is usually accompanied by a higher birth rate (if not prevented). Thereby the age composition. optimum population and income *per capita* change.

Stage of Arts.

Stage of Arts means "the totality of devices and expedients which men have developed for appropriating the natural supplies of Land and making them available for human satisfactions—inventions, discoveries, material instruments, all accumulated technique, scientific theory, practical craftsmanship, all tools, all machines, factories, steamships, railroads, agricultural implements, theory, all practical knowledge of engineering, mechanics, organization, finance, agriculture, stock-raising, irrigation, drainage, all productive qualities of the people themselves, inventive faculty, accumulated dexterities, mental alertness, and also dogged industriousness."[4] Commercial and political relations with other countries besides international movement of population form a part of the Stage of Arts. For our purpose foreign relations can be divided into two groups: (1) trade relations, and (2) international movement of population. Now-a-days no country is entirely self-sufficient. We produce goods which our natural resources enable us to turn out with great economy and rely on other countries for goods which we cannot produce cheaply. Changes in technique of production in foreign countries affect our imports and exports and our industrial organization; and optimum population is thereby affected. Migration policies which interfere with the international movement of population also affect income *per capita*. Some times the emigration of persons of a certain type for example, non-workers, raises the income *per capita* of the rest, whereas the emigration of persons of another type, for example, engineers and bankers, lowers the income *per capita* of the rest.

Standard of Life.

Standard of life[5] means the average level of comforts provided by all the material goods and services ranging from the barest necessaries to the most elaborate luxuries which are as a matter of fact available to the community. While income *per capita* is exactly what people get, their standard of life depends within the limit—defined by their income, on what they spend and how they spend it. When we study how the income is spent, the question of value and opinion creeps in and the study cannot

4 Proceedings of the World Population Conference, 1927. Edited by Mrs. M. Sanger, The Theory of Optimum Population by Prof. H. P. Fairchild.

5 The concept of Standard of Life by Hugo. E. Pipping—Economic Essays in honour of Gustav Cassel.

give practical and scientific results. Moreover it is easier to get the figures of income *per capita* than of standard of life. So income[6] *per capita* should be preferred to standard of life.

This is the static definition of the term optimum population. If at any time, given the Land and the Stage of Arts, in a country, an increase in its population tends to increase income per head, the country is under-populated. Conversely, if an increase in the population tends to decrease the income per head, it is said to be overpopulated. Prof. Robbins explains clearly the concept of optimum population. "Theoretically, it is possible to imagine a community whose members enjoy the standard of life of millionaires, which was yet over-populated in the economic sense. If the elimination of one millionaire would increase returns per head to the efforts of the others, over-population would be present."[7]

In the static definition of optimum population, we take into consideration the endogenous changes in the Stage of Arts, (changes which result from changes in population) and leave off the exogenous changes because they cannot be forecasted, being the result of factors that are not connected with the changes in the population itself. In this definition of optimum population we have assumed that the quantity and quality of natural resources remain constant, and so does the Stage of Arts. In fact, however, neither the quality and quantity of Land nor the condition of Arts remain constant, except in very static societies during a sufficiently long period of time; that is to say all the factors involved in the determination of the optimum population change while the population changes. In other words the optimum is not static but moving. Hence the problem of optimum population is not so much that of adjusting a variable population to a given quantity of Land and a given Stage of Arts, but that of harmonising its changes with the changes that take place in respect of the latter also. In short the problem of optimum population is dynamic rather than static.

II

In the definition of optimum population economic welfare is taken as criterion, though economic conditions are only some of the factors that contribute to human welfare. Some writers

6 J. A. Hopson writes that distribution of real income should be considered—An Optimum Population.

7 London Essays in Economics, p. 120.

however object to the restriction of the criteria of optimum population to economic indices. They take welfare in the broadest sense, including therein all objective and subjective conditions that affect total welfare or human happiness which is the goal of progress.

Dr. W. S. Thompson means by optimum population " the best population that is needed or that can survive under the best conditions that it proposes for itself."[8]

Col. Sir Charles Close adopts a eugenic criterion. According to him the optimum population is the largest possible number of people who are perfectly fit morally, mentally, and physically. He says, " A less wealthy community may be more cultured and it is culture of mind and body and spirit that really matters."

Dr. C. V. Drysdale and Dr. R. K. Mukerji consider longevity as the best criterion, because longevity is generally associated with high productivity, good morals, enlightenment and social peace. Professor A. B. Wolfe criticises this criterion and says, " It is clear that according to such a standard a population of long-lived healthy animals, regardless of culture, would fill the requirements of optimum."[9]

Mr. Lindley M. Fraser writes, " An economic optimum, when it deprives people of the possibility of at least occasional seclusion and solitude and deprives them of healthy and special housing, is to be avoided rather than desired." The income *per capita* in some cities which are very congested and where death rates are very high, is higher than in villages which are less congested and where death rates are lower. Sometimes a certain concentration of population, inspite of a high death rate resulting therefrom is preferable in absolutely poor countries if that concentration helps people to earn more and have enough food and dress.

Prof. C. Gini thinks of the optimum population from the national, military standpoint. The highest possible standard of life of individuals existing to-day tends to reduce the population and ignores the military interests of posterity. The military optimum population is described as follows by Prof. Wolfe:— " To posit national power or national survival as a fundamental desideratum, may logically regard the largest population (within the boundaries of his own nation) consistent with adequate subsistence and physical health as the optimum, since

8 Proceedings of the World Population Conference, 1927.

9 American Journal of Sociology, March 1934, p. 598.

the nation will then have the largest possible military strength."[10] A country which has realised the economic optimum population may be under-populated from the military stand-point and stand in danger of being conquered by others. But modern wars require money more than men. Prof. Wolfe describes the antagonism between economic and military optima in the following words: " If we do not breed like rats, regardless of economic consequences, we shall be in danger of attack by other and envious nations in which unlimited multiplication will have afforded both reason and a means for aggression. And if we do so breed, we shall reach the subsistence level in which death will constantly reap a fast harvest without any foreign assistance."[11]

The significance of the non-economic criterion cannot be overlooked. But all of them except the longevity criterion are non-measurable. (The economic criterion is measurable). Even the longevity criterion is not as good as the economic criterion. Longevity depends upon income, specially in poor countries. Generally increase or decrease of economic welfare is accompanied by increase or decrease of total welfare. In the case of a poor country like India, economic criterion moves in the same direction as other criteria. For a long time to come increase of economic welfare leads almost certainly to increase of total welfare and longevity. Finally as economists we are competent to deal with the economic criterion alone, though we must always admit this criterion is not the final one.

III

The theory of optimum population is generally appreciated, but the difficulty of applying it to any society makes one reject the whole concept with facile pessimism. Dr. Dalton writes, " If the magnitude of A[12] at some future date can be approximately forecasted, a programme of economic development can be planned now, which will bring O[13] nearer to A at that date than if we go forward blindly." He wants to bring O nearer to A, rather than A to O, probably with the idea that economic development is easier than the regulation of population growth. Either by a policy of bringing O to A or A to O, or bringing the two close to each other, we can have optimum population. When

10 Population Problems, Dublin, p. 69.

11 American Journal of Sociology, 1934, p. 589.

12 A—means actual population.

13 O—means optimum population.

once we know which is the optimum population, it is not very difficult to have it. Regarding the method of calculating the optimum population, Dr. Dalton is silent and says it is one of the unsolved but nevertheless soluble problems in economics.

The Law of Diminishing Returns helps us to find out if a certain population has reached its optimum. With a given technique of production, additional units of population cannot be added without reaching a point at which their product will no longer be proportionate to the increase in population. This law works in agricultural as well as non-agricultural production and the stage of its working can be found out. The farmer should understand whether ten employees on his farm produce twice as much as five employees. If they cannot, he should understand that Diminishing Returns have begun. Though there is no loss to him, he fails to obtain the maximum profit from each employee. Similarly, the optimum population can be found out for every occupation, village, and country. It can be demonostrated to what extent agricultural or clerical occupation is over-populated and also at what rate it is continuing so.

The process is not so simple as it appears at first sight. Just as we keep index numbers of prices and cost of living of certain groups, we must maintain the index numbers of Land and Stage of Arts. Under Land, rainfall, climate, soil constituents, etc., should be studied. Under Stage of Arts, gross cropped area, double cropped area, area under profitable crops, irrigated area, manures, implements, workshops, conveyances, organization, trade, foreign connections, etc., should be studied. Besides, changes in numbers, income *per capita* of the population should be noted. A comparison of these indices over a period of, say 10 or 15 years, would give us an idea of the rate at which a population is moving towards or away from its the then optimum. The trend of the four factors, and the inter-relation between them should be studied carefully so that we can find out the changes in the optimum population and the effect of fluctuations in the different factors. The optimum population can be ascertained to the nearest million.

IV

The economic optimum population is an individualistic and utilitarian concept, different from the national and social concept. The goal is not the largest possible production but the largest production *per capita*. In the past population policies were directed by political and religious considerations than economic. Today perhaps more importance is attached to economic factors

at least in non-totalitarian states. We study the effect of the size of population on production while Malthus thought of the effects of production on population. He thought of subsistence, death, and maximum possible population while we think of the highest income *per capita* under existing conditions of Land and Stage of Arts. The problem is not a short-period one. A method which solves the short period problem might make the long run more difficult. For example, if in a country there were no marriages, income *per capita* may reach the climax in the short run. But after a few years when the present active workers grow old income *per capita* would fall and there will be under-population. A decreasing population is not necessarily an under-population. The optimum population of today should not hinder us from having the optimum population in the near future. We must have optimum population not just for an year but for ever, at least for a fairly long period. We have to be very alert always, note every change in the world and strive to have optimum population always. Besides the optimum population for the whole country we should have optimum population in each occupation and in each division of the country. Studies in quantity structure, and movement of population without reference to optimum population are incomplete because the highest income *per capita* under actually existing conditions of Land and Stage of Arts is ignored.

V

When a country, which has abundant natural resources is over-populated, and its people are too conservative to change their marital practices or have no outlet for their surplus numbers through emigration, the best thing to do is to keep the population stationary and improve the Arts of production to the degree at which the existing population would become the optimum population. But it is difficult to improve the technique of production at once, and in the mean time the population tends to increase by leaps and bound. The country should have therefore a double policy of restricting the growth of population and of improving its Arts. In the case of over-population in a country where there is scarcity of natural resources, great difficulty in improving the technique of production and marital practices, emigration should provide a solution. If this solution is not available, a higher mortality will solve the problem. Under-population should be solved, either by encouraging immigration or by raising the rate of natural increase (excess of births over deaths).

WHAT IS ECONOMICS?

BY

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What is Economics? Marshall has defined Economics as "A study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of well-being."

There are some who have criticised this definition by asking what is ordinary business. By ordinary business what Marshall means is business in the same sense in which we use it when we ask a person his occupation or avocation in life. Or what is understood by the terms by students of Economics, that is, anything which is done with the view of marking a profit. So long as we use the term business in this sense the definition is perfectly intelligible. The moment we import any other interpretation in it the definition becomes quixotic and then all sorts of criticisms can be levelled against it and that is precisely what most of the critics of Marshall have done.

Is this study of mankind in a particular field of action a science or is it merely a collection of certain facts and fiction classified under certain heads? Whether it is to be looked upon as a science or not would depend upon what we mean by the term science. There are some who say that only that body of knowledge which is capable of marking forecasts as to what is going to happen in future deserves being considered a science; whilst there are others who would designate a body of systematised knowledge, capable of yielding some generalisations as a science whether or no that systematised knowledge has attained that perfection of measureability and that degree of certainty which alone make accurate forecasting possible.

If we incline to the first view Economics is certainly not a science. If, however, we subscribe to the second it certainly deserves being classed as a science.

To my mind, however, it is futile to determine whether Economics is a science or not. What is of real importance to me is that man exists, and he has certain wants and that he does engage himself for a pretty good part of his life time in getting

things that satisfy his wants which when left unsatisfied make him unhappy and when satisfied make him happy. It is precisely this field of man's activity study of which Economics has made its special preserve. Whether man's study and investigations in this particular field have reached that degree of perfection which he has attained in some others is, more or less, immaterial to a student bent upon seeking the truth, though it may be of paramount importance to one who wishes to glorify himself as a scientist as also to one who wishes to glorify himself by subjecting to ridicule an earnest student of a branch of knowledge all the four corners of which have not yet been reached.

Economics as we all know is one of those branches of knowledge that are called derived or secondary, such as Eugenics. It derives its basic laws from such sciences as Psychology, Agriculture and so forth and on the base of these builds up a super-structure peculiarly its own. Whereas the basic laws are eternal and absolute the super-structure is relative to the environment in which it is raised. This peculiar feature of our study is not clearly recognised either by the professed students of what is characterised by some as capitalistic Economics or by the critics of the capitalistic Economics. Whereas the laws that we study under Consumption and Production are eternal and absolute the whole of Exchange and Distribution are relative—relative to the assumptions such as the institution of private property, free competition and so on. Change these and the whole of the superstructure will fall to the ground.

All this is true but when the followers of Marx criticise the classical and neo-classical economists for having built up the existing superstructure on wrong premises they are by no means justified. They ask "Is there free-competition in any part of the world to the extent assumed by economists?" or again "Is competition available in all parts of the world to the same extent?" The answer is a categorical "No" to both the questions. And yet during the 18th and the 19th centuries free competition was the only thing that could with any degree of accuracy be assumed as a working premise specially in the countries of the west. It was not perfect to the extent assumed by the economists and yet there was no alternative premise ready to hand even so perfect as the imperfect free competition.

All honour to Marx for having seen ahead of the times and for having discerned the dangers incidental to capitalistic organisation of economic life. But the students of Economics would have certainly failed in their job if instead of explaining the existing economic phenomena in terms of the prevailing

circumstances they had sought to develop and explain them in terms of things that did not exist. The worst that could be said about them is that while explaining economic phenomena in the terms of what existed they did not proceed further to point out its drawbacks and to suggest a safer and a better economic policy and programme. They may also be accused of not only having suffered the then existing economic organisation as an inevitable evil but also of having approved of it. But it must be said in their favour that it is always easy to be wise after the event and, that under the circumstances then existing they probably could not have done otherwise.

Here the Marxists might say, yes, but those very circumstances were there when Marx did write what he wrote. True, and therein lies the width and acuteness of his vision. But Marxists forget one thing that Marx could have never written what he did write if he had not almost one hundred years history of capitalistic regime before him. Again they forget that what Marx suggested in 1840 to replace what then existed had that been introduced in actual life, then his system would have proved an utter failure as the circumstances under which socialism is possible were not present for its growth. Marx like so many others before and after him suffered from the fallacy of exclusiveness.

In the history of our world we have had this fallacy running through and through. Each individual thinker looks at only one aspect of a particular problem. If one is dissatisfied with the existing industrial organisation, he looks upon it in an exclusive manner forgetting that a certain system of industrial organisation is not independent but is the resultant of a complex of conditions social, moral, religious, physical and so forth. If another is dissatisfied with the existing religions he propounds a new philosophy of life with its new moral code; and if that philosophy of life and moral code happen to be ahead of the time in which they are given, as almost all important movements of thought have almost always been, and consequently fail to achieve an immediate success, then he feels mortified and considers the rest of the world as stupid forgetting the relativity and interdependence of the various phenomena in this life. The same is true of Marx and others who have given us the philosophies of economic life on which Socialism and Communism are based. Both they and their followers refuse to take full note of the relativity and interdependence of the various aspects of life, hence their rage against those who do not see eye to eye with them.

One cannot say that there is something in Communism which is radically bad or which is impossible. But one has to say that it is certainly impossible in the present state of the human affections. When humanity will have rid itself of lower passions like jealousy, when sense of duty rather than the pleasure of sex gratification will regulate the birth of children, then and then only will Communism be a scheme within the range of practical politics.

We might in this connection note the slow but steady victory of Socialism. The doctrines of earlier Socialists were looked upon with utter incredulity, and people could not think of the state owning and controlling all the means of production. But what has happened with the passage of time? One activity after another, that some time back, when the size of the undertaking was not too large and did not give enormous power to the individual controller of that industry, was looked upon as the rightful preserve of individualistic enterprise, has been passing under control of the State, and worked on the principle of the highest benefit or maximum satisfaction to the people, and not on the principle of the highest net revenue to the enterpriser. The clue to this riddle is to be found in the change that has come to pass in the constitution of the State itself. What difference would it have made if a large industry—say the railroad system of India—had passed from individual enterpriser to a despotic monarch? He as usual would have worked it on very much the same principles as the individual enterpriser. It was because of the half-conscious realisation of this fact that people so stoutly opposed the Socialistic programme in its earlier days. Then, again, we may add, that in the earlier days of Socialism the size of individual business was not so large; an individual enterpriser had not such a tremendous power of doing evil as he has now, and therefore he had not excited the opposition of the common people to such an extent as to compel them to think of methods of eliminating him. It is the combined result of the change in the outlook of the people brought about by the tyranny of the Monopolist, the Kartelist and the Master of the Trust, and the change in the constitution and outlook of the State that has made a good part of the Socialist programme possible, and, as changes in other departments of life continue, more and more of it and later on Communism will come in.

But our enthusiasts shut their eyes to the hard realities of relativity and interdependence and would have their pet philosophies translated into practice over night. If the average man refuses to fall in line with their views he must be made to

do so by force. If the students of Economics fail to build their superstructure of Exchange and Distribution on the premises which underlie their philosophy of economic life, but which do not underlie the existing economic order even to the extent that imperfect perfect competition underlies then they must be ridiculed and the subject matter of their study declared as not deserving the appelation of a science at all. This is heroic indeed. But is it scientific? I leave it to you to judge.

REVIEWS OF BOOKS

WORLD ECONOMIC SURVEY, *1937-38*. League of Nations.

"Will the recent economic decline lead to a new depression? Or is it only a temporary setback?"—This question is posed in this year's *Economic Survey* of the League, but not answered. The *Survey* makes a clear presentation of the main economic events and reproduces a wealth of facts and figures culled from the other specialised publications of the League's Economic Intelligence Service, and this must aid the formation of opinion in regard to the nature and future of the present trend of world's Economic activity. The steady fall in employment and the recrudescence of unemployment in many countries, the decline in production and accumulation of stocks of primary products, the change in the trend of prices from a rising to a falling movement, and the fall in both the quantum and the value of world trade—these are the outstanding events of the year under review.

In March and April 1937, commodity prices reached their peak and a general boom seemed to be so imminent that economists and bankers began to think furiously about the ways and means to be adopted for controlling it and for preventing a later crisis. The present recession of activity came as a direct consequence of this heart-searching and it may well have been somewhat self-induced like an exercise in Couéism. For, the *Survey* notes that "the more immediate occasions for the break in prices were a statement by President Roosevelt that prices had risen unjustifiably, a growing belief that the Government of the United States intended to reduce the dollar price of gold in order to curb the excessive rise in prices, and, in the United Kingdom, the announcement of a special tax on rising profits."

B. P. ADARKAR.

THE LITERATURE OF POLITICAL ECONOMY, by J. R. McCultoch (1845). Reprinted by the London School of Economics and Political Science. 1938. Pp. 407. Price 12*s*. 6*d*.

This is the fifth of the Series of Reprints of Scarce Works on Political Economy which the London School of Economics and Political Science is bringing out. It is a classified catalogue of select publications in the different departments of Political Economy with historical, critical and biographical notices.

The publications included in this work are those publications only which have helped to establish sound principles or to facilitate their adoption. A few of those works that contain "erroneous theories and opinions which have been most ingeniously and ably defended or which have had a considerable practical influence" have also been noticed, but very sparingly. Those that advocate a reduction of the standard money, the issue of inconvertible paper, the adoption of a double standard of value and such like devices, have been altogether

excluded. The scarcity of a work has not been a recommendation for its specification. A scarce work has been referred to only if it satisfied the criterion laid down for the notice of publications.

The critical notices that the work contains are short. They are meant to give a general idea of the work to which they refer and do not go into a detailed examination of it. They also allude to the circumstances which gave rise to principal theories and determined public opinions on economical questions.

The works noticed are divided into classes or sections and noted according to the date of their publication.

The work is an extremely useful one. It is to some extent, expected to be a history of Political Economy, to enable the public to form a true opinion of the theories propounded by the different writers, and, to serve the researcher by placing at his or her disposal a list of the works that have appeared on the subject he is concerned with and a gist of the theories they embody.

The value of the work is greatly enhanced by the addition of a double index—(1) an index of the authors, and (2) an index of the books and tracts.

G. D. K.

A History of Economic Thought, by Erich Roll Faher and Faber, London. 1938. Pp. 430. Price 12*s*. 6*d*. net.

This book is concerned with the development of economic thought from the notions of the Bible and of Greece to the present-day Economic Theory. It does not, however, deal with all the streams of economic thought but with those only that have gone to make up the modern economic doctrines. The theories of money and economic crises find a place in it only in so far as they form an integral part of an author's work in pure theory. Says the author, "My main concern has been with the wider questions of economic scope and method, of the relations of economics and politics and of the place which economic theory has occupied in social change."

This purpose of the book has determined the choice of the thinkers who have been discussed. Those names have been taken notice of whose work has been a significant contribution to the current theory and controversy as well as those who clearly exemplify different trends of thought.

The author believes rightly that the emergence of particular theories has not been accidental, but has been the result of causes which can be traced. The causes are economic, social and political structures and theories. The last two have sometimes been more influential than the first, although they were linked to this in final analysis. The economic cause has been the determinant in ultimate analysis only. The influence of these various causes the author brings out clearly.

The book is meant for the professional student of economics as well as for the layman. It is meant for the former because the technical refinements of modern economic analysis are likely to so absorb his

attention as to make him forget the essentially practical character of his subject and its relation to other branches of thought. It is meant for the latter because he is likely to be confused by the number of conflicting answers which the economists give to the concrete issues of to-day. A history of economic thought explaining the origin of economic theory as the present book does historically and critically will enable him to reconcile the various answers.

The book contains eight chapters. Chapter I is entitled *The Beginnings* and discusses the ideas of the Bible, of Greece and Rome and of the Middle Ages. Chapter II is *Commercial Capitalism and Its Theory* and deals with the decline of scholasticism, mercantilism and Thomas Munn. Chapter III is *The Founders of Political Economy* and is concerned with the political philosophers—Petty, Lock, North, Law, Hume; Cantillon and Steuart; and, the Physiociats. Chapter IV is called *The Classical System* and deals with Adam Smith. Ricardo and Malthus (theory of population). Chapter V—*Reaction and Revolution*—points out the shortcomings of classicism, discusses Malthus's critique of accumulation, the German Romantics and Socialist criticism. Chapter VI is devoted to Marx—his life. method and theories. Chapter VII is headed *The Transition* and treats of the historical school. Jones, the break-up of the labour theory of value, and Senior and Mill. Chapter VIII, entitled *Modern Economics*, explains the quality of the present-day economic thought, the marginal utility analysis by Gossen, Jevons, Menger and Walras, and the points of view of Marshall, Wieser Böhm-Bawerk and Pareto.

The book is concluded with remarks on the present position of economics and the problems which its future development will have to face. It is a notable addition to the works on the development of economic thought.

G. D. K.

THE ECONOMIC DEVELOPMENT OF MODERN EGYPT, by A. E. Crouchley. Longmans. 1938. Pp. 286.

This book gives, in outline, the important features of the economic development of modern Egypt. Modern Egypt began with the French invasion of 1798. The book is thus concerned with the changes in the economic sphere that came over that country from the end of the eighteenth century to the present time.

To convey a clear idea of these changes the author starts by explaining the economic movements in Egypt prior to the French invasion and pointing out the situation at the end of the eighteenth century. During the eighteenth century the country sank to the lowest economic depth imaginable. The state of affairs that presented at the beginning of the period under review was therefore one of ruin and arrested economic development. Agriculture, industry and commerce all were in ruins. On land, the old mediaeval feudal system was in existence: the *hey* was the feudal lord with his estates and privileges and the *fellah* (farmer) was a virtual serf. In the towns, the artisans and merchants formed themselves into associations of the type of primitive guilds of the middle

ages. As to commerce, Egypt had become isolated from the rest of the world and her international trade was practically at a standstill. The population came down to two and a half million people from about 10 millions a few centuries back.

Out of this state of despondency, Egypt was jerked by the French invasion which is an important landmark in the economic history of the country. Its effect was to break-down the old regime and to indicate the way to build-up the new. The power of the Mamelukes was shattered, a number of reforms were introduced or projected and the attention of Europe was drawn to Egypt. The French, however, did not stay long enough to carry out the reforms they had projected. The situation when they left was certainly confused and obscure. But Mohamed Ali laid "the foundation of the economic and political order which is modern Egypt."

Mohamed Ali ruled from 1805 to 1849. After him came Abbas, Said and Ismail—1850 to 1880. By this date Egypt had acquired the means of communications adequate, if not surpassing, her immediate needs. In consequence production, commerce and foreign trade developed. The expenditure on the extension of the means of communication, however, left the government in great indebtedness.

The year 1880 is another important landmark in the economic development of Egypt. In that year the Law of Liquidation was passed and this brought to an end the period of large scale borrowing on government account. Also in the same year was enacted a law which conferred on the farmers the ownership of the land they cultivated. "The period of rather wasteful, hurried, progress-at-all-costs policy was followed by a period of calm, purposeful, economical development, which brought to full function the seeds of progress planted earlier in the century."

From 1880 to 1914 were built a number of dams and barrages which have had a great effect on the economy of the country. Due to them both the cultivated area and the area under crops have increased.

Then came the War, 1914—1918. The war had a profound effect on the economic development of Egypt. The huge profits that were made during the war years enabled the country to wipe off a considerable amount of the foreign debt, accustomed the people to the use of bank notes and banking operations and paved the way to founding of an important bank and allied companies working entirely on Egyptian capital and deposits. It also brought home to the Egyptians the weakness of their economic position and the necessity of a more planned economic development.

During the post-war years Egypt witnessed like most countries of the world three waves of depression in 1921, 1926 and 1931 respectively. These slumps were very trying times both for the people and the government. However, there has been, on the whole, improvement in every direction. Agriculture, industry, commerce have all made progress. Agriculture has been helped by the establishment of institutions like the Agricultural Bank of Egypt and the Credit Agricole and industry by the introduction of protection.

A few figures showing the economic development of Egypt from 1800 onwards may be noted. The population has increased from two and a half million people in 1800 to sixteen millions in 1937, the cultivated area and the crop area from about 3 million and 2 million Feddans to about 5 million and 8 million Feddans respectively; the foreign trade from £E. 269000 exports and £E. 288000 imports to £E. 38,016000 exports and 38,665000 imports respectively. Similar increases have taken place in bank notes and depositing clearing house returns, the revenue and expenditure of the state, etc.

As to the future, the following remarks of the author may be noted: "The future economic development of Egypt will ultimately depend upon the use made of the Nile in its triple capacity of irrigation, transport and electrification. With care and foresight, enjoying as it does the blessings of bounteous nature and a place in the sun, under the enlightened rule of her young and popular king, rejoicing in her full national status and free from many of the trammels of the past, the country can look forward with confidence to an era of prosperity and development in the years to come."

The book is based on original sources—official and semi-official orders, reports, inquiries, statements, etc.,—in various archives and describes very well the changes in the economic structure of Egypt during the period it deals with.

G. D. K.

TO-MORROW'S WAR, by Stephen Th. Possony. Published by William Hodge and Co., Ltd., London. 1938. Pp. 255. Price 8*s*. 6*d*. net.

This book written by a German expert on military problems discusses the question of modern warfare both from the technical as well as economic standpoints. It emphasises the fact that war is no longer a business of mercenery armies fighting on demarcated battle fronts, but that it has become the business of every individual to offer himself in conflicts which are waged on an all-in basis. Not only the technique of war but the economics of war has also undergone a change, "committing the nations to a kind of warfare which would involve them in worse than bankruptcy and entail a loss of life compared to which that of the Great War will pale into insignificance."

Herr Possony controverts certain popular opinions on the subject of aerial and mechanised warfare. Distinguishing between a War economy (the military organisation of a country during peace-time in anticipation of War) and the economics of war (the actual economics of running a war), he tries to prove that through its very complexity and economic and physical strain, a modern war between equals cannot last long and will end in the crack-up of both the victor and the vanquished. The figures, which he piles up in his above book, are most impressive as well as somewhat sensational. For example, for a war extending over

a 1000 kilo-metre front (about 700 miles), he estimates the following requirements for defence and attack respectively:—

Weapons.	Strength required at moment of attack.		Annual requirements (Strength + loss in 12 months).	
	Defence.	Offensive.	Defence.	Offensive.
Machine-guns ...	80,000	100,000	160,000	200,000
Guns ...	15,000	23,000	30,000	45,000
Anti-tank guns ...	8,000	16,000	15,000	30,000
Anti-aircraft guns ...	25,000	25,000	38,000	50,000
Armoured cars ...	13,000	40,000	25,000	120,000
Observation and defence planes ...	11,000	31,000	28,000	85,000
Bombing planes ...	5,000	22,000	15,000	65,000

As regards the human element, he estimates that 3 million active men would be required for defence (on a 1000 kilometre front) and double that number for an offensive. If the air-force personnel is included, the figures will be five and half millions and six and half millions respectively. As regards, the noncombatant and industrial personnel required to feed this army, his figures are 52 millions and 82 millions respectively. These breath-taking figures, Possony assures us, are conservative. His conclusion is that their very magnitude should damp all enthusiasm for war on both sides of the European Camp. It must be said, however, Possony is postulating an "ideal" war fought on an imaginary 1000 kilometre front, by two equal parties only, under European conditions, where frontiers are not determined by Nature. The application of his figures to a country like India must be made very cautiously.

His opinions on aerial warfare radically differ from those of General Douhet whose book, *The War in 19——*, created a sensation some time ago and who is acknowledgedly one of the best international experts in the science of war. Possony thinks that the strategy of destruction visualised by Douhet will not be so effective as the strategy of attrition practised in the last War and advocated by Marshall Blumenthal as the mainstay of the next one. The German writer, unlike General Douhet, does not rate the destructive effects of the heavy bombers very high. He admits that, as conceived by Douhet, the next war will be a "total war" not in the sense that it will really hit the whole of the enemy country, but in the sense that it will mobilise all the country's forces. He observes further that "the effect of modern warfare remains far behind the intention, and the gap between idea and reality means that, in future wars, a rapid and decisive victory is impossible, where the opponents dispose of equal economic and moral strength; in other words, that the advantage will continue to be with the defensive, and blockade must be considered the chief weapon." He, like Liddell-Hart, concedes the element of surprise to hitting power, but believes that this will play only a large but not necessarily a conclusive part in the next war.

While proper weight should be given to the opinion of such an obviously well-informed writer like Herr Possony, it still remains an open question whether offensive aerial warfare, by its destructive effect on the centres of production and transport and the morale of the civilian population, would not, on the balance, be more conducive to ultimate victory than to that of mere passive blockade. If Possony were correct, England, which cannot be attacked from land, need not feel so nervous as she was in last September. Possony also seems to have missed the really epoch-making discoveries achieved by the Germans in the shape of new lethal gases and potent high explosives. Further, the successful German experiments in autarchy and the possibility of friendly allies supplying the necessaries of life have robbed economic blockade of much of its terror and no nation which is awake to its responsibilities can be easily beaten to its knees by such blockade alone. The speed range and capacity of bombers have all been improved beyond the recognition of those whose experiences are confined to the last war. For example, in 1918 the active range of a bomber was only a few hundred miles and it could not rise over 15,000 feet with load. To-day, the long-distance record for loaded bombers is 3,000 miles and they can reach an altitude of 25,000 feet: while unweighted they can fly 7,000 miles at a stretch and rise to 30,000 feet. Too much emphasis cannot be laid on the fact, moreover, that the defensive capacity of a nation is just equal to its reproductivity in a military sense. If a successful surprise enemy raid or sabotage puts out of commission the prominent factories, the defences of a nation will be, momentarily at least, seriously paralysed. In the English air exercises conducted recently (August 1938), which were called off owing to large casualties due to bad weather, it was reported that the "enemy" bombers broke through no less than thirteen times, despite the most furious barrage and counter-attack, and reached their objectives with disastrous results. This shows that with an extremely mobile and adaptable weapon like the aeroplane the offensive can outpace the defence. It is obvious, however, that the anti-Douhet School has wide adherents in England, where the prevailing military opinion seems to believe in a policy of efficient defence at home, coupled with an economic blockade of the enemy, and a minimum commitment in the land warfare abroad. This will probably leave France to shoulder the task of stemming the German tide of invasion, and with the Maginot Line it is believed she will be able to face this task singlehanded.

Strangely enough, Possony believes in the balloon barrage scheme so dear to the hearts of the Londoners. He even thinks that the gas bags may be replaced by hovering helicopters which will carry the steel spider's web of wires to catch the enemy fire-flies. This idea is somewhat fantastic, since enemy attack will most probably come by surprise and there will be no time for the helicopters to take to the air. Moreover, in view of the recent German invention of wire-cutting planes, the net barrage might become a useless and delusive weapon of defence. Possony is right when he discounts the offensive value of artillery, however, owing to the great cost incurred in blowing vast quantities of ammunition and the alternative provided by deep dug-outs for negativing damage.

B. P. Adarkar.

FOOD PLANNING FOR FOUR HUNDRED MILLIONS, by Radhakamal Mukerjee, PP. xviii. 267. Macmillan, 1938. Price 7*s*. 6*d*.

I

In this book, Dr. Mukerjee investigates the all-important question of the relation between population, nutrition and agriculture, and develops the thesis that Indian population has reached the saturation point, so that the objective of a rising standard of living would now demand a conscious control of population growth on the one hand and a more rational and economic food production policy on the other.

Assuming one acre of cropped area per capita to be the indispensable minimum for adequate nourishment, Dr. Mukerjee shows that for India as a whole the present population is 1·3 times the saturation limit, while for Bengal it is 2·1 times, Bihar and Orissa 1·58 times, the United Provinces and Madras each 1·35 times, the population of the Punjab, Central Provinces and Bombay being still somewhat below the liming point (pp. 6-7). Nor is there much room for extension of cultivation except in Assam, Burma and Sind, the proportion of cultivated area actually brought under the plough being 65 to 85 p. c. in the other provinces. Since a due proportion of forest areas has to be maintained for regulating water supply and preventing denudation of the soil, one may accept the author's conclusion that in most parts of India the limits of geographical extension of agriculture have been nearly reached.

Again, by applying Sündbarg's age categories and by considering the trends of marriage rates among females and of vital statistics, the author concludes that the rate of increase during the decade 1931—41 will be 13 p. c. as against the 10·6 p. c. of 1921—31, and that the rate of growth of population would be accelerated in the next few decades. He puts down four hundred millions as the expected population numbers for 1941.

Moreover, the scarcity of food supply is aggravated by the maintenance of much too large numbers of domestic animals which compete with men for a share of the products of land. Whereas Japan keeps 6 head of cattle per hundred acres of cropped area, China 15, Egypt 25, and Holland 38, the corresponding number for India is as high as 67. The aggregate for the whole of India gives the enormous figure of 315 millions. Most of these animals are ill-fed and inefficient and many are even perfectly useless either as draft animals or as a source of milk. And one can whole-heartedly agree with the author when he suggests that India must adopt a "definite programme of reduction of cattle numbers and controlled breeding" and make a more appropriate division of cultivated lands between food and fodder crops through a system of mixed farming, which will undoubtedly contribute towards the healthy development of much needed live-stock and dairy industries.

As remedies for heavy population pressure, the author suggests as follows: (1) intensive cultivation in the direction of growing more heavy-yielding cereals, peas, beans and fodder crops with the use of better seeds and fertilisers, (2) inter-provincial migrations, specially to Assam, Burma, Central Provinces and North Western Frontier Province, (3) assisted emigration overseas within the British Empire which com-

prises the greater part of the undeveloped regions of the earth, (4) intensive industrialisation including both large-scale industries in the cities and rural industries such as vegetable oils, tobacco, hemp and silk factories and small handicrafts in the villages and (5) inculcation of the small family habit through country-wide birth-control propaganda.

II

This, then, is the main thesis of the book under review. The author is a great believer in Malthus. And in attempting to interpret India's population problem in the light of Malthus's teachings, he calls to his aid a formidable array of interesting data from such diverse fields as Economics, Sociology, Bio-chemistry, Dietetics and Animal Husbandry. His learned dissertation, however, raises some important issues which need to be examined a little closely.

It is indeed agreed on all hands that there is a great pressure of population in India and that the population lives on a low and precarious margin of subsistence. But, can it be definitely said that the condition has been going from bad to worse as a result of the growth of population? Let the author's statistics give an answer. Taking 1910-11 to 1914-15 as the base period, we find that by 1932-33, while the population grew by 20 p. c., crop production increased by 27 p. c., food crop by 34 p. c., non-food crops by 21 p. c. (pp. 16-17, 32-33) and industrial production by 56 p. c. (p. 27). And by arguing backwards, cannot one say that, if population had not grown as it has done, production, too, would not have increased in the way it has? Further, even if it be true that the limits of extensive cultivation have been approached, there must be a large scope for the increase of intensive cultivation and for economising the use of land through the various methods suggested by the author in chapters vi. vii, viii. x and xii of the book.

Again, it is no doubt very regrettable that there is a high percentage of infantile and maternal mortality and a low expectation of life in India. But, no one can deny that this has been largely due to ignorance, superstition, unhygienic living and woeful inadequacy of medical aid and public health measures. But, here, too, the question is, has the situation deteriorated due to the growth of population? Let the author's statistics once more answer. Between 1881—1931, the population increased by 81 millions or 32 p. c., and the mean expectation of life increased from 23·67 to 26·91 years for males and from 25·58 to 25·56 years for females (pp. 48—50).

Further, even if it be an accurate estimate that in 1935, there was a food shortage equivalent to the requirements of 48 million out of 377 million people in India, which would mean a deficit of 13 p. c., is the position worse or better to-day than it was, say, in 1911 or 1921? In 1921, it was estimated by Mr. Daya Sankar Dubey that two-thirds of the population of India could only get three-fourths of their minimum food recruitments, which would show a deficit of 16·7 p. c. To know the trend, we must know what the food-man ratio was in 1911 or 1921 and what it is to-day.

Or, can we definitely say that in the coming decades the population pressure will increase at an accelerated pace as compared to the past?

Rise in the age or marriage, better sanitation and medical aid may lead to a larger survival rate than before. But, as Dr. Mukerjee shows, with the growth of literacy and culture, the rate of increase tends to diminish even in India (pp. 223-24). If that be so, may not one expect that as literacy becomes universalised and people become conscious of their standard of living, the rate of increase may be held in check through conscious efforts? Again, the evidence regarding the effects of rise in the age of marriage of women on rates of infantile survival is conflicting. Thus, while Dr. Hutton opines that an increase in the age of marriage for girls, on the whole, increases the probability of survival to the children (Census of India, Vol. I, Part I, p. 206), Mr. Porter's figures for 2406 Bengalee families suggest that survival rates are higher in marriages where wives are 16 or below than in those where wives are 17 or above at marriage (Census of India, Vol. 5, Part I, Bengal and Sikkim, p. 169). Consequently, it is not safe to predict an accelerated growth due to the rise in the age of marriage for women. We should also do well to take heed of what a great modern authority on population question has to say on the matter: "Our knowledge of the population of the earth is rather scanty . . . For many countries where censuses are taken we may be able to tell approximately the present number of inhabitants but, owing to the lack of adequate records of births and deaths, we know almost nothing about population trends. Thus, it would appear from the census statistics of India that the population increased between 1921 and 1931 by 34 millions or 10·6 p. c. But, according to 1931 life tables, mortality appears to be excessive while the 1931 investigations of the number of children per marriage and the large proportion of non-productive widows would indicate that fertility is rather low. It may well be, therefore, that the apparent increase in population in India between 1921 and 1931 was no genuine growth but was due, for example, to the combined effect of more accurate enumeration in 1931 and a temporary age composition which tends to swell the number of births and to reduce the number of deaths. (The Statist, December 25, 1937, p. 877, article on "The Population Problem by Dr. R. R. Kuczynski).

Further, apart from the difficulty of predicting the population trend in India due to lack of relevant data, the dysgenic trends of population, which Dr. Mukerjee discusses in the most interesting last chapter of the book, should make us pause awhile before we advocate a bold policy of country-wide birth-control propaganda. Supposing Dr. Mukerjee's advice were accepted by the Provincial Governments and supposing they organised a large-scale birth-control propaganda, what would be its likely effects? Will not the practical consequence be a further slowing down of the rate of growth among the higher and more literate and cultured classes, so that the disparity between the respective rates of growth of higher and lower classes, which he regrets, would be aggravated? And would one be justified in expecting that such a propaganda will also have a retarding influence on the rate of growth of the less literate and culturally lower groups, who have no idea of the standard of life and who understand little and care less about the population problem of India?

If, then, our data are insufficient, and if we are not at all sure of the exact meaning of such data as exist, one can legitimately suggest

that the economists should be exceedingly cautious in making statements about India's population trends.

III

The doubts raised above merely refer to the question of population trends. They do not imply that there is nothing wrong with the economic position of the Indian masses. It needs no argument at this hour of the day to prove that the economic condition of the Indian people is extremely miserable. Nor can anyone take the least exception to the very excellent and practical suggestions thrown out by the author in the latter chapters of the book regarding agricultural adaptation, crop-planning, nutrition, cattle improvement and industrialisation, which are calculated to set the Indian masses on the high road to prosperity. Perhaps the Provincial Governments could hardly get a better guidance in drawing up their economic programmes than is to be found in the pages of this valuable book.

But, the questions raised above do imply a contention (*a*) that the present economic miseries of the Indian people may not be due to the population movement, (*b*) that it is not proved that the growth of population is tending to make the condition from bad to worse, and (*c*) that a deliberate measure of control of population trends may not be definitely desirable or practicable under present circumstances.

In any case, however, it may be unhesitatingly stated that the present work is a most thoughtful and thought-provoking book which covers much new ground and which should be highly stimulating to all students of Indian economic problems.

H. L. D.

DISTRIBUTIVE CO-OPERATION IN INDIA, by V. G. Ramakrishna Ayyar. Published by the Annamalai University. Pp. 58.

Mr. Ayyar has given us in this small brochure a strong plea for the development of Consumers' Co-operation in India. As shown by him this aspect of co-operative activity is particularly weak in our country. We recommend the book to all those interested in the welfare of the country.

B. G. B.

THE WORKER'S STANDARD OF LIVING. Published by the International Labour Office, League of Nations, Geneva. 1938. Price 2*s*. Pp. 101.

The report was prepared in accordance with a resolution adopted in October 1937 session of the Assembly of the League of Nations. In Chapter I an attempt has been made to define the determinants of the Worker's Standard of Living. After discussing a number of interpretations put on the term 'Standard of Living' as well as the term 'Standard of Life,' the Committee concluded "the Standard of Living is here described in objective terms as consisting of three main elements: (1) the level of consumption, or the composite of goods and services of a specific quantity and quality consumed by an individual family or group within a given period; (2) Social services and free services, particularly those

which relate to health, education and recreation; and (3) Working conditions which affect not only the worker's health and earning capacity but also the size and regularity of his income." In Chapter II an attempt has been made to describe and evalute the data available in the various countries regarding the constituents of the worker's standard of living. In Chapter III some aspects of the Worker's Standards of Living in some countries specially U. S. A., Poland, India and Japan have been described and discussed in detail. Chapter IV the last chapter reviews briefly the discussion of the previous chapters and summarises the evidence presented of low levels of living.

The facts of this Report tend to reinforce and to sharpen convictions already widely held concerning the prevalence of poverty and low standards of living and the need for considering economic and social policies to improve existing conditions. Obviously, plans of action can be laid down more effectively only on the basis of more complete knowledge than we now possess of the facts concerning the character and causes of low living standards in each particular country. This opens up a wide field for enquiries to fill the gaps in our information pointed out in Chapter II and to ascertain the nature of low standards along the lines indicated in Chapter III. The incontestable facts concerning the inadequacy of nutrition, housing, etc., clearly point to the need for studying the possibilities of increasing output and the productiveness of human labour, especially in the poorer countries, as well as of investigating the methods of ensuring a better distribution of the product. However, while the main reason for low living standards in most parts of the world is poverty, an improvement in conditions of living depends also upon a clearer understanding of the part played by education and by social customs in determining the worker's standard of living. Furthermore, as the social services are in most countries an important factor in determining health, earning capacity and security, the possibility of extending these services is a basic question for further study. Also in view of the fact that in countries with a rapid rate of population growth, measures for the improvement of health and social conditions may result in an even more rapid rate of population increase and therefore in increased population pressure, it is of importance to pursue the study of problems of the "optimum" population for each country and of questions connected with the most effective distribution of the world's population. Last, but not least, there are the problems involved in protecting existing standards against the threat of severe economic depressions and against the dislocations due to rapid technical and structural changes in industry and trade.

In general, the preliminary study made here suggests that the relations between the various determinants of the worker's standard of living are complex and that the pattern differs considerably between countries. It is clear that this pattern depends not only on the stage of development of the national economy, but also on national habits and traditions. There is thus a large field here for social-economic research which would throw light on the nature of the determinants of the worker's standard of living in particular countries, and on the relation of these determinants to problems of international co-operation."

B. G. B.

CO-OPERATION IN INDIA, by C. F. Strickland (Third Edition). Published by Oxford University Press, India Branch. 1938. Pp. 112.

This brochure on co-operation in India is a very handy work. Within the compass of 112 pages the author has treated the whole problem of co-operative movement in India with remarkable success. His treatment is at once concise and lucid. We recommend the book to all those who want to have a clear and correct idea of co-operation in India without going to such elaborate works as that of Wolff or Ewebank.

B. G. B.

THE BOARD OF ECONOMIC INQUIRY, Punjab Publications, Nos. 58, 59 and 60.

No. 58 is the twelfth in the series of Farm Accounts published by the Board. The report covers the period 1935-36 and is divided into two parts, the first dealing with farm accounts and the second with the varying systems and costs of well-irrigation. Messrs Labh Singh and Ajaib Singh deserve our thanks for continuing these accounts. We have now figures for over a decade in which to compare the rise and fall in the fortunes of those engaged in the business of cultivation in the Punjab.

No. 59 gives us family budgets of six tenant-cultivators in the Lyallpur district for the year 1935-36. It is also by Messrs. Labh Singh and Ajaib Singh. This is the fourth in the series, which was started in 1932-33.

No. 60 gives us the urban working class cost of Living Index Numbers in the Punjab for the year 1937. The index has been prepared by Mr. Ram Lal, Director of Industries, Punjab. This is the second of the series, the first relating to the year 1936 was published in No. 56. The present report shows that the cost of living in 1937 was higher than in 1936 in all the five centres, *viz.*, Ludhiana, Rohtak, Lahore, Sialkot and Multan in descending order. The index numbers have risen from 5 to 12 points.

We are happy to note that the series is being continued.

B. G. B.

THE TWENTIETH CENTURY ENGLISH-HINDI DICTIONARY, by Sukhsampatirai Bhandari. Published by Dictionary Publishing House, Brahmpuri, Ajmer. Price Rs. 17.

Mr. Bhandari is to be congratulated on bringing out this Dictionary. In these days when efforts are being made to introduce teaching in Hindi and Urdu or even in that indeterminate and indeterminable language the Hindustani, such a work is likely to be of immense help.

Mr. Bhandari has given Hindi equivalents of (1) commercial and economic terms, (2) political terms, (3) medical terms, (4) scientific terms, (5) astronomical terms, (6) mathematical terms, (7) botanical terms, (8) zoological terms, and (9) legal terms.

His treatment of the subject of commercial and economical terms is certainly exhaustive. But he has followed rather closely Pandit Daya Shankarji Dube of the Allahabad University. As such his product suffers from precisely the same defect as that of Daya Shankarji, *viz.*, to ignore the current terminology of the business world and to draw largely, almost exclusively, upon Sanskrit roots.

In fairness to both Mr. Bhandari and Pandit Dube I must say that the defect pointed out by me is more a matter of opinion than of workmanship. It is a defect only in the eyes of those who like myself believe that economics being a science which deals with things that concern almost everybody should as far as possible draw its terminology from the work-a-day business world so that it may easily be understood by those for whose benefit it is specially meant. However, to those who are firm believers in Sanskritising of the Hindi language this feature must appeal as a great merit.

B. G. B.

REVIEW OF THE TRADE OF INDIA IN 1937-38. Published by the Government of India. Price Rs. 2-12-0. Pp. 326.

This is the sixty-fourth issue of the Review of the Trade of India. As usual it is replete with useful information about the foreign trade of India. Part I consists of report and Part II is full of statistical data. In Part I, Chapter I, all the relevant factors that influence the foreign trade of India have been analysed and discussed. The author concludes "The boom conditions in commodity and share markets and the general business prosperity obtaining in the early part of the year were reversed in the second half. Liquidation on a large scale corrected the earlier excesses and the position would have been healthier but for the pessimism which prevailed among the business community. The intrinsic position of most industries and markets was generally sound after the vigorous shake-out and only a change in the psychological condition was probably necessary to start some sort of upward movement from the abnormally low level to which most markets had sunk in the depression. Such a change appears to have come over the business community in June, though it is too early to say whether the movement is likely to be sustained and prove to be the harbinger of a real recovery of whether it is merely a temporary rally in the general downward movement. But temporary or permanent, there is no doubt that after many months a slight upward movement became fairly perceptible towards the end of June. The origin of this new development was in the United States of America where the business recession of last year first made its appearance. A better tone came about in Wall Street and in the American commodity markets and prices registered some advance and this movement spread to other countries. India also shared in this revival of confidence and her markets responded in the latter part of June and in July. Prices of commodities had almost continually declined till the first or second week of June. Thereafter as a result of the change in the market sentiment many commodities rose in price appreciably; changes took place in the prices of raw cotton, jute, raw and manufactured, groundnut, linseed, wheat, rice and sugar. This list shows how

general the rise has been: most market reports at this time were couched in more optimistic terms and attributed the rise to the more hopeful reports from America. The Stock Exchange and the money market also shared in this return of confidence and prices of many shares have been marked up appreciably. The index of variable yield securities in June 1938 recorded its first small rise sinee September 1937. Quotations of speculative securities show the effects of this new sentiment more clearly. Prices of these scrips had declined sharply after October 1937 and these were the first to move up rapidly from the middle of June. For example, the Tata Ordinary and Deferred shares which are two of the best speculative counters on the Bombay Stock Exchange and the Indian Iron and Steel shares, the corresponding speculative counter on the Calcutta Stock Exchange, registered considerable advances in prices from the third week of June (the increase being as large as 25 per cent in the case of the Tata Ordinary and Indian Iron and Steel, and 39 per cent in Tata Deferred) up to the third week of July. There is no doubt, therefore, that both the commodity and share markets have shown some revival from the middle of June. As has been remarked above, however, it is too early to say whether this is the beginning of a real business recovery."

B. G. B.

PRACTICAL AUDITING, by Spicer and Peglar. Published by Sir Isaac Pitman and Sons, Ltd.

The Principles of Auditing, by F. R. M. de Paula. Published by Sir Issac Pitman and Sons, Ltd.

Practical Auditing by Spicer and Peglar is a standard work on auditing both from the point of view of the professional auditor as well as the serious student of the subject. The book under review is in its fifth edition, published in 1930. This edition incorporates the changes brought about by English Companies Act in 1929. It gives all the leading cases on Company Law affecting the liability of Directors and Auditors. It should be found helpful even by those who conduct the examination of Municipal or District Board accounts as there is a separate chapter on the audit of accounts of local authorities. We commend the book to everyone interested in the subject.

The Principles of Auditing by De Paula is a very good text-book on the subject. In its present edition it is considerably enlarged and improved. The first edition of the book was written as far back as 1914, and the work under review is in its eighth edition. The author has brought to bear some original thought on certain accountancy problems, like that of 'Depreciation' and 'Valuation of Stock,' etc. He has added two new chapters on the presentation and audit of the accounts of holding companies. The usefulness of these chapters has been considerably enhanced by the 'Report and Accounts of the Dunlop Rubber Co., Ltd.' with which company the learned author was closely associated. In Appendix B are given 150 examination questions. The book is moderately priced.

K. L. GOVIL.

BANKING IN INDIA, by S. G. Panandikar, Second Edition, Longmans, 1937. Pp. 365. Price Rs. 6.

This is the second edition of Dr. Panandikar's *Banking in India*, which was first published in 1937.

The Central and Provincial Banking Enquiry Committees of 1929—31 in their Reports presented a huge mass of materials relating to the banking problems of India. Those Reports altogether covered 20,000 pages. Although all students of banking and currency, practical bankers, leaders of industry and trade and legislators would like to know as much as possible about the problems of Indian banking, which must be regarded as one of the bases of economic progress, few can have the leisure or the patience to master the enormous literature published by the Banking Enquiry Committees. Dr. Panandikar has, therefore, rendered a great service to all students of Indian banking problems by summarising, within the space of 365 pages and in an eminently readable form, all the essential materials collected by the Banking Enquiry Committees.

The book has been brought up to date by the inclusion of a chapter on the Reserve Bank of India and a section on those provisions of the Indian Companies Amendment Act, 1936, which relate to banks and which must be regarded as the first banking law of India.

The book will be valuable to all those who want to have a bird's-eye view of Indian banking and should prove a useful text-book for students of Indian banking, and specially for Honours and Post-Graduate students.

H. L. D.

PRINCIPLES OF POLITICAL SCIENCE AND GOVERNMENT, by Dr. Biman Behari Majumdar. Second Edition. Mandal Brothers & Co., Ltd., Calcutta. Pp. 510 + viii + vii. Price Rs. 2-8-0.

This is the second edition, "thoroughly re-written," of an evidently successful book. It treats not only of such topics of political philosophy as the nature of the state, sovereignty, law, liberty and public opinion, citizenship and nationality but also of governmental organisation and the constitutions of a number of countries—England, France, Germany, Italy, Switzerland, Russia, the United States, Ireland, Japan and India.

The book bears ample evidence of wide and careful reading, study and thinking. Throughout there is a laudable attempt at precision. But there is one fatal drawback. The mode of treatment lends itself to cramming, rather than independent thinking, on the part of college students. Everything here is cut and dried—principles, divisions, subdivisions, criticism and questions selected from examination papers.

It is a welcome sign of the times that Indian scholars are devoting their attention to political philosophy. It is equally desirable that students should be stimulated to study for themselves and not be furnished with ready-made fare.

BENI PRASAD.

The Managing Editor acknowledges with thanks the under-mentioned books sent to him for purposes of review:—

1. Trends of Agriculture and Population in Ganges Valley—by Birendra Nath Ganguly. Published by Methuen & Co., Ltd., London. 1938. Pp. 315. Price 18sh. net.
2. A Century of Bank Rate—by R. G. Howtrey. Published by Messrs Longmans Green & Co., London. 1938. Pp. 328. Price 10sh. 6d. net.
3. Elements of Indian Company Law (3rd Edition)—by Sohrab R. Davar. Published by Messrs Butterworth & Co., Calcutta. 1938. Price Rs. 10. Pp. 660.
4. What is Wrong with Indian Economic Life—by Dr. V. K. R. V. Rao. Published by Messrs Vora & Co., Bombay. 1938. Pp. 104. Price Re. 1.
5. Parliamentary Government in England—by Harold J. Laski. Published by George Allen & Unwin, Ltd., London. Pp. 453. Price 12sh. 6d. 1938.
6. Human Factor in Business—by B. Seebohm Rowntree (3rd Edition). Published by Messrs Longmans Green & Co., London. 1938. Pp. 244.
7. Three Lectures on Commerce and One on Absenteeism—by Mountifort Longfield. Published by London School of Economics & Political Science, London. 1938. Pp. 111. Price 6sh.
8. France Faces Depopulation—by Joseph J. Spengler. Published by Duke University Press, Durham. 1938. Pp. 313. Price $ 3·00.
9. Three Studies on the National Income—by Prof. A. L. Bowley & Sir Josiah Stamp. Published by London School of Economics & Political Science, London. 1938. Pp. 145. Price 6sh.
10. The Indian Cotton Textile Industry (1938 Annual)—by M. P. Gandhi. 1938. Pp. 100 plus XXXVIII. Price Rs. 2-4-0.
11. The Indian Sugar Industry (1938 Annual)—by M. P. Gandhi. 1938. Pp. 300. Price Rs. 2-4-0.
12. All-India Industrial & Commercial Directory. 1938-39. Published by the All-India Industrial Federation, Bombay. 1938. Price Rs. 2.
13. The Social and Economic Environment of the Indian Christian Population—by Rev. James Kellock. Pp. 78.

14. The Synthetic Optimum of Population—by Imre Ferenczi. Published by International Institute of Intellectual Cooperation, Paris. 1938. Pp. 115.

15. An Experiment in the Registration of Vital Statistics in China—by Prof. C. M. Chiao, Warren S. Thompson and Mr. C. D. Chen. Published by Scripps Foundation for Research. Oxford, Ohio. 1938. Pp. 115.

16. Joint Stock Banking in India—by D. S. Savkar. Published by The Popular Book Depot, Bombay. 1938. Pp. 250. Price Rs. 3-8-0.

17. Indian Economics, Vol. II—by G. B. Jathar and S. G. Beri (5th Revised Edition, 1939). Published by Messrs Oxford University Press, Bombay. Pp. 672. Price Rs. 6.

THEORY OF INTEREST RECONSIDERED

BY

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I. The "classical" view and the "modern" view.*

According to the classical theory, the rate of interest is determined by the supply of and demand for savings. The rate of interest is the price of savings. That amount of saving and investment comes about which is shown by the intersection of demand and supply schedules for savings. If the supply of savings is greater than the demand for investment the rate of interest will fall till equilibrium is reached. Thus by the movement of the rate of interest savings and investment are brought into equality with each other.

The "modern" view represented by J. M. Keynes is that the classical reasoning is beside the point. Whatever the rate of interest saving can never be different from investment. If there is an increase in investment then incomes also increase and saving is increased by exactly the same amount as investment is increased.

* Keynes, General Theory of Employment, Interest and Money.

Joan Robinson, Introduction to the Theory of Employment.

"Alternative Theories of the Rate of Interest," Three Rejoinders, E. J., December, 1937.

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"Notes on Recent Business Cycle Literature," Howard Ellis, Review of Ec. Statistics, August, 1938.

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"Is Money saving equal to Investment," Myra Curtis, Q.J.E., August, 1937.

"The Outcome of the Saving-Investment Discussion," F. A. Lutz, Q.J.E., August, 1938.

Keynes draws his inspiration from the Mercantilists in his explanation of the theory of interest. The rate of interest is what people pay for borrowing money. It is what people get for lending their money to others instead of holding it themselves. It is not at all payment for saving, for one can save without lending at interest the money saved. And one can get interest for lending money which he has not saved but which he has inherited.

The demand for money is the demand to *hold* money; the supply of money is the total amount of money that there exists. It is the intersection between the demand schedule and the supply schedule that gives the rate of interest. The higher the rate of interest the greater is the cost of holding money, the cost being measured in terms of interest foregone. Conversely people are induced to hold money rather than lend it by the fall in the rate of interest, because, then for some people the satisfaction of holding cash can be indulged in to a greater extent than before.

The modern theory conceives the rate of interest as a money rate. Interest arises out of the exchange of present money for future money. The determination of the rate of interest is a specifically monetary problem. The monetary character of interest is stressed by Wicksell and developed by Keynes. For them interest rate is primarily determined by monetary factors. Keynes has brought money out of its isolated position as a separate subject into an integral relation with general economics. The theory of money and the theory of interest, for example, are no longer treated in watertight compartments.

II. Liquidity Preference.

Keynes calls his doctrine of interest "liquidity preference." An individual has a choice between holding money and lending it out. There is thus a demand curve for money showing the amounts of money an individual will desire to hold at different rates of interest. The rate of interest is determined at that level which makes the demand for money equal to the supply of money.

The demand for money is only a species of a large genus. The genus with which our analysis is concerned is the demand for liquidity or liquidity preference. Keynes points out that interest is not, as has been stated by the classical writers, the price of waiting—it is not the remuneration necessary to call forth saving, because a man can save money, bury it in his backyard and get nothing for it in the way of interest. Interest is not to be considered as a reward for waiting. It is the reward for

surrendering liquidity, that is, the reward for dispensing with the convenience of holding money immediately available.

The concept of liquidity preference has given rise to much confusion of thought as Keynes seems to use it in several different senses. Thus the liquidity preference curve may relate the total demand for money to various rates of interest or it may show that amount of money which will in fact be demanded for all purposes. Or again liquidity preference may be regarded as essentially the same thing as the propensity to hoard or it may be taken as the preference of an individual for a certain degree of liquidity in the assets he holds, an increase in liquidity being obtained by moving into cash or by moving from long-term into short term assets or by moving from risky securities to dependable securities.

Interest is the price for sacrificing the liquidity preference. The longer the time for which the sacrifice is made the higher the rate of interest. We should generally require a higher rate of interest for locking up our resources for ten years than for locking them up for one year. There thus emerges a schedule of liquidity preference showing for how long investors are inclined to lock up their resources at the various interest rates prevailing in the market.

The schedule of liquidity preference acts upon saving and investment and through them on employment and output. With a threat of war or a fear of depression there may be a flight from long-term debts to short-term debts or from high-risk assets to low-risk assets so that interest rates on the former go up and those on the latter go down. The volume of long-term investment which depends upon the marginal efficiency of capital, that is, upon schedules of prospective profits, may fall and together with it there will be a fall in income, employment and saving.

Conversely liquidity preference may be the author of recovery. There being no threat of war or fear of depression the feeling may spread that investment on long terms is quite safe. Long-term investments will be bought and the long-term interest rates will fall accordingly. Prospective profits on investment will be reckoned high while interest rates are quite low. Investment will grow and with it income, employment and saving.

Apart from changes in the schedules of liquidity preference and prospective profits there is another factor which acts as a major influence upon interest rates—this factor is the quantity of money. As the supply of money increases the terms on which it is loaned to borrowers must decline. Liquidity preference remaining the same competition will take place among those who

want to get rid of the additional money created by the Central Bank. The way to get rid of it is to find some one to borrow it by lowering the cost of borrowing.

The " quantity theory of money " was inadequate because it concentrated attention upon the effects of the volume of money upon the propensity to consume. No doubt an increase of money does increase propensity to consume but the " quantity theory " conceived the propensity to consume as an amount of expenditure and not as a proportion spent of the additional incomes. Increased money supply will cause increased expenditure but not in the same proportion. Given a continual increase of money the proportion of income finding its way into expenditure will tend to diminish.

An increase in the quantity of money is likely to lead a rise in prices. Why? An increase in the quantity of money tends to reduce the rate of interest; a fall in the rates of interest promotes investment; an increase in investment leads to a general increase in activity, an increase in activity is accompanied by a rise in prices. Changes in the quantity of money are of the utmost importance, but their importance lies in their influence upon the rate of interest.

III. S=I.

The most striking and at first sight the least convincing of the new ideas propounded by Keynes is that which proclaims the necessary equality of savings and investment. Ordinary economic theory explains to us the working of the economic system in " normal " or " static " conditions. All disturbances in the economic system were regarded by the classical economists as deviations from the normal or static equilibrium. Thus boons and depressions are deviations from the position of balance. The market rates of interest are departures from the natural rate. There are deviations of the actual money supply from some neutral money. There is a disparity between saving and investment.

The new theory breaks away from the whole range of these traditional ideas. Keynes alleges that the ordinary or orthodox economic theory does not give a correct analysis of even normal conditions as it leaves out of account many important things. Since there is no norm it is useless to discuss deviations from it. The changing, progressive, fluctuating economy should be regarded not as a norm or a static state but in terms of a shifting equilibrium.

Saving and investment for a whole economy are always equal. Since the equality has appeared paradoxical to many economists and has given rise to much controversy it is worthwhile to express it in terms of simple equations.

First Equation: $Y-C=S$. The aggregate amount of saving in any period (S) is defined as the aggregate income in the period (Y) minus the expenditure on consumption goods (C).

Second Equation: $Y-C=I$. The aggregate amount of investment in any period (I) is defined as the aggregate income in the period (Y) minus the expenditure on consumption (C).

Third Equation: $S=I$. Since $Y-C=S$ and $Y-C=I$ we get the result $S=I$ on the principle that quantities that are equal to the same quantity are equal to one another. In plain words the sum of the savings of all individuals is equal to the sum of their investments in the same period.

That saving should be equal to investment appears peculiar because there is obviously no mechanism whereby any individual's decision to save causes somebody to invest an exactly equal amount. And it is perfectly possible for any individual to save more without investing more himself.

The proposition that $S=I$ applies only to *aggregate* saving and investment. It is not necessary that aggregate investment should increase whenever any individual decides to save more than before because the increase in an individual's saving would adversely affect the amount saved by others. The individual has diminished his consumption C and by diminishing the income of those who sell consumption goods he has diminished the total income Y. Hence $Y-C=S$, the same as before. The truth is that others have saved as much less as he has saved more. The classical view that an individual in deciding to save more increases the aggregate amount of saving is thus wrong.

It would appear that the equality between saving and investment is liable to be upset by *hoarding*. A man's saving may be more than his investment, and he is said to hoard the difference. Why cannot society hoard just as the individual? And if society hoards (or dishoards) will it not make saving greater (or less) than investment?

An individual can hoard in the sense that his saving exceeds his investment and his holding of money increases by the difference. But what is true of the individual is not true of the society as a whole, because while some people hoard others dishoard or dissave. Society's total stock of money remaining unchanged no single person can increase his store of money without somebody else diminishing his store of money. There cannot be for society

any *net* hoarding or *net* dishoarding—there cannot be for society any saving over investment or of investment over saving.

Suppose the monetary authority does increase the amount of money. Then there will be and there must be net hoarding exactly equal to the increase in the stock of money. On the part of individuals who are left with the extra money there is an excess of saving over investment. The excess however will be balanced eventually by individuals who borrow the extra money and invest it on consumption goods or capital goods. We have thus once again the inevitable equality of saving and investment.

All the items considered are payments over a period and not payments existing at some point of time. The payments are all of the nature of a flow and not of stock. The proposition $S=I$ is a proposition about flows and has nothing to do with stocks of money.

The proposition is fundamentally an analytical proposition and not an observation of the world. It follows from the postulate that in any period moneys paid out are equal to moneys received. Expenditure must not be conceived as coming out of the income received during a given period. Expenditure is to be regarded as a flow during a period coincident with the flow of income during the same period.

Each individual separately is free to save either more or less than he invests, but all individuals together are not so free. What is true of individuals may not be true of all individuals together. Just as any country is free to import more than it exports but world imports are always equal to world exports so also in the case of saving and investment by individuals and by society as a whole. Each individual considers his own income as given but really the size of his income is determined by other people's expenditure on the goods he produces in the same way as his expenditure has the effect of creating income for other people. For the community as a whole its income is created by the community's expenditure on consumption and on investment. The excess of the community's income over the expenditure on consumption must have been created by expenditure on things other than consumption, that is, on investment. Hence $I=S$.

IV. Marginal Efficiency of Capital.

The rate of interest is related to the marginal efficiency of capital, a new concept introduced by Keynes and not found in

Marshall and his followers. It is in the analysis of capital that Keynes introduces some of his subtle and most valuable innovations.

Investment consists in the application of productive resources to the manufacture of capital goods. Capital goods are goods which are expected to yield services in the future. The efficiency of a capital good is the rate of yield of the capital good or, in the words of Irving Fisher, the rate of return over cost. It is the
to the manufacture of capital goods. Capital goods are goods

Marginal efficiency of any capital good is the efficiency of the marginal item. The marginal efficiency is described in the same way as a rate of interest; it is a percentage of so much per annum. But it must not be confused with the rate of interest, for the advantage of borrowing money or for the service of lending money.

The rate of interest and the marginal efficiency of capital act upon each other. It will pay the entrepreneur to borrow money for the construction of capital goods so long as the rate of interest is less than the marginal efficiency of capital. As the volume of investment increases the most profitable opportunities are exploited and thus the marginal efficiency of capital diminishes and approaches the level of the rate of interest.

If the marginal efficiency of a capital good rises above the rate of interest then its demand price rises above the supply price and consequently the output of the capital good will expand until equality is restored. In a word the output of each kind of capital good is determined so that its marginal efficiency equals the rate of interest. The economic system then is in equilibrium. Changes in the marginal efficiency of capital relatively to the rate of interest are responsible for changes in the activity of investment industries. These changes are ultimately responsible for most changes in the activity of the whole economic system.

On what does the marginal efficiency of capital depend? It depends on (1) risk, (2) the expected trend of prices or the long-term expectations of profit and (3) the actual amount of capital goods already possessed by the community. Keynes attaches great importance to the last factor as it forms the basis for his theory of trade crisis and long-period unemployment.

The accumulation of physical capital like the one that occurs during a trade boom forces down the marginal efficiency of capital. At such times investment can be maintained only by sharply reducing the rate of interest. A point will soon be reached when it is difficult to find new capital goods whose production will yield enough to cover the interest charges. The

activity of the investment industries will thus decline and the depression will set in.

To prevent a decline in marginal efficiency of capital we must utilise factors that make for expanding investment and increasing employment. Keynes enumerates the factors which kept up the marginal efficiency of capital in the nineteenth century, namely, growth of population, progress of invention, opening up of new lands, the state of confidence and the frequency of war. Mr. J. R. Hicks makes a sardonic comment, " Either we must accept something like the policy he advocates of stimulating investment and repressing saving by changes in social organization; or our once benevolent science becomes a paean of destruction whose heroes are earthquake, war and conflagration, Attila and Genghis Khan, Great Raisers of the Marginal Efficiency of Capital and Creators of Employment."

V. Determination of the Rate of Interest.

Interest is the payment made for obtaining the use of money for a certain time. The motive of the lender is to receive interest. The motive of the borrower is that he can use the money to acquire capital goods which he expects to earn at least as much as the interest he has to pay or because he needs money now more than he needs it in the future. There are thus the supply of money and the demand for money and each of these may be subjected to close examination.

(a) The demand for money is really a demand to hold money. Anyone who owns money could either hold it or lend it out at interest. Why should people hold part of their wealth in cash or in ready money when they might acquire interest by lending it and by investing it in securities? Keynes has made us familiar with three motives for holding money, namely, the transactions motive, the precautionary motive and the speculative motive. Whether a man holds money or he invests, his money in goods and bonds depends upon the relative strength of these motives. A man may be looking for liquidity, security or anticipated profitability. For reasons of convenience and a sense of security there is always a certain amount of money that people want to hold. But the higher the rate of interest the less money they will want to hold. The convenience obtained by holding money will be weighed against the interest obtained by parting with it.

The people have a choice between holding money and buying securities. If the rate of interest is high people will buy securities rather than hold money; if the rate of interest is low

people will hold money rather than buy securities. The desire to buy securities drives up their price and so lowers the rate of interest while the desire to sell securities drives down their price and so raises the rate of interest. So then the rate of interest is perpetually moving towards the equilibrium point at which no one who owns securities wants to convert them into money and no one who owns money wants to exchange it for securities.

(b) The supply or quantity of money consists of coins, notes and deposits. In normal times coins and notes belong to active circulation because they are not hoarded. The rate of interest has little or no influence on them. But it has a real influence on deposits. Deposits are of two kinds, namely, (1) active deposits, that is, funds held to meet the disparity between current receipts and payments and (2) inactive deposits, that is, funds held in the form of accumulated wealth. In general the amount of active deposits is not much affected by the rate of interest but the amount of inactive deposits is greatly influenced by the rate of interest.

The banks keep a certain ratio of cash to assets in general, *e.g.*, in the British system the ratio is roughly 1 to 10. Cash consists of coins, notes and deposits with the Central Bank which are regarded as equivalent to cash. The remaining assets of banks consist of bills, advances and investments, all of which may be compendiously termed securities. Securities earn interest while cash earns none. The banks do not want to hold an unnecessary large amount of cash as it means loss of income in the shape of interest to them. Neither do they want their ratio of cash to fall below the safe limit. The banking system as a whole determines the amount of deposits. By buying securities it lowers the rate of interest and thus increases the amount of deposits held by the public. The banking system can control the rate of interest by operating on the quantity of money.

According to Keynes the rate of interest is the price which equilibrates the desire to hold wealth in the form of cash with the available supply of cash. In other words the demand for cash and the supply of cash are dependent upon the rate of interest. Professor Ohlin prefers a slightly different formula, namely, the interest rate is determined by the intersection of the demand and supply curves for *claims or credit.* Robertson and Hicks are disposed to reason on the same lines and convert Keynes' Demand and Supply for Money theory of the rate of interest into a Demand and Supply for Credit theory. Since claims or credits themselves depend upon the quantity of cash or money a separate formula is in the nature of an unnecessary refinement.

INTEREST AND INVESTMENT

BY

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I

I propose in this paper to content myself with drawing attention first, to those points of dispute in the theory of interest which have since been resolved, and secondly, to those where the differences are still unbridged. I shall show that in certain cases at least the apparent differences are not real but arise as a result of differences in assumptions or in applications of different economic circumstances. Finally, I will conclude by examining the extent to which interest is a real determining factor in investment.

Thanks to Mr. Keynes' epoch-making book, it is now evident that the traditional theory of interest was admittedly deficient in many respects. The classical school had one theory of interest in the department of value and of distribution, and quite another in the sphere of money. There was no attempt at all to bridge these two points of view, with the result that a strange dichotomy continued and no one knew exactly if and how the quantity of money affected interest.

That the rate of interest is a monetary phenomenon and that it is a money rate, being a relation between a present claim on money and a deferred claim on money is now widely recognised. To have secured acceptance to this point of view is a great gain.

Another equally important achievement of Mr. Keynes is that he has once and for all demolished the view that interest is the balancing factor bringing savings into equality with investment in the sense that if either saving or investment increases it is through interest that equality is brought about. The implicit assumption in the above that income remains constant is shown up to be utterly inconsistent with the view that either savings or investment can alter independently without causing a change in income. It is a great gain to have reached agreement on this fundamental point that it is not the rate of interest but the level of income which ensures equality between saving and investment.

Thus, if investment increases, income increases to such a level that there is brought about an increase in savings equal to the increase in investment. Or again, if savings increase, a decline in investment occurs and income falls, so that in the end a balance is secured at a lower level of investment and savings.

Further, this idea of a decline in investment when saving increases constitutes an almost revolutionary departure from the traditional view that an act of saving necessarily implied a corresponding act of investment. There is no doubt that it is conceivable that in conditions of full employment and in circumstances when the opportunities for profitable investment are pressing against existing resources, *e.g.*, war or rearmament, saving might imply investment. But except in such circumstances, there is no doubt that an act of individual saving would in itself constitute a net diminution of demand. It would not only reduce present consumption demand but also present investment demand. The level of investment would be adversely affected and income would fall. Thus, what saving and investment do determine is not the rate of interest but the aggregate volume of income. If this be true, its implications are of great importance. As Mr. Keynes points out, a decreased readiness to spend will be looked upon in quite a different light if instead of being regarded as a factor which will increase investment it is seen as a factor which reduces income.

Demand for Investment.—The volume of investment depends upon the propensity to consume and on opinions of the future yields of capital assets. On both these concepts Mr. Keynes sheds very valuable light. According to him propensity to consume diminishes with every increase in income; that is to say, when income increases, consumption increases but at a diminishing rate. This has a great bearing on investment and on income. The old view that saving is a function of the rate of interest is disputed by Keynes. While the short-period effects of an increase in the rate of interest may or may not be favourable to saving, and in any case are of secondary importance, over a long period a rise in the rate of interest would surely bring about a diminution in savings and also ultimately in consumption. For a rise in the rate of interest will diminish investment. Hence incomes will be reduced to an extent at which saving is decreased in the same measure as investment. Hence aggregate income and not the rate of interest is the variable on which consumption depends. But as aggregate income rises, not all the additional employment will be required to satisfy the needs of additional consumption.

The implication of the above is that an industrially advanced country will find more and more difficulty in finding suitable opportunities to fill the gap which decreased consumption releases in the form of unconsumed wealth. " While employment is a function of the expected consumption and expected investment, consumption is a function of net income, *i.e.*, of net investment." In every modern country liberal provision is made for replacements, sinking funds, depreciation, etc., with the result that propensity to consume is thereby reduced. Sinking funds and replacement funds have the effect of reducing current effective demand and act as a drag on progress and well-being. Now how far is Mr. Keynes' conception of the diminishing propensity to consume based on sound experience? Although much more evidence will be required to test this theory than has been actually available, it is in accord with our general knowledge. But if this be so, it means that the orthodox economists went wrong in assuming that every individual spent the whole of his income either on consumption or on buying directly or indirectly newly produced capital goods. Savings are made with a view to security but investment stops on account of risk factors.

Marginal Efficiency of Capital.—It is in regard to the marginal efficiency of capital that some of the most original ideas of Keynes are revealed to us. The concept of marginal efficiency of capital is in one sense the same as the marginal productivity theory of the classical school. But there is a world of difference between the way in which Keynes has worked it out and that in which it was understood by the classical school. To Keynes the marginal efficiency concept is dynamic. It depends on expectations and on future yield, and the stress he lays on expectations constitutes a striking departure from the classical theory. Marginal efficiency depends on the state of confidence, on psychological and uncertain factors and is by no means dependent on a low rate of interest. The rate of interest and marginal efficiency of capital are two different things determined by quite different causes but are brought into equality because when they differ, it would pay the entrepreneur to act in such a way as to bring the rate of profit into equality with the rate of interest. But the rate of interest by itself is not a very important determining factor, except under static conditions.

Indeed, on account of the uncertainty of the future, investment will not respond to low rates of interest. If market conditions and prices of factors and raw materials are apt to fluctuate widely, they affect the success of a given investment more than the rate of interest. But on account of the risks involved, the

precariousness of our forecasts and their liability to error, invesment is liable to wide fluctuations. Hence a mere control of interest rates would not be of much avail in promoting investment.

Speaking with reference to advanced industrial countries which have already accumulated large amounts of capital goods with them, Keynes believes that the marginal efficiency of new capital goods will be very low and hence unless the rate of interest is brought down to a low level, investment cannot increase. But there is a limit to the fall in the rate of interest due to technical and other factors. If, therefore, interest cannot be reduced, we should adopt the course of stimulating investment by public action and of reducing saving or the country would be in a state of permanent depression. Or perhaps we should do like the boy in Charlie Chaplin's Kid, who breaks the glass windows and doors of houses so as to enable his companion who closely follows him behind to get repairing work.

But is the prospect so gloomy as Keynes would have it? The declining population of several countries is said to be a portent. But one is not sure. The world has been witness to many a bogey of which in the past overpopulation was one; and now the Malthusian bogey is sought to be replaced by another bogey. There will be a way of escape before the effects of a declining population come to be felt, and marginal efficiency of capital need not go down and down. But even if a declining population may give some cause for alarm, there is no reason to think that we have seen the last of inventions. And then there are always other great creators of employment, wars and other engines of destruction. But that Keynes has pointed to a very significant factor of disequilibrium cannot be doubted and his view has been echoed by Mr. Robertson who differs from him in many other respects but who, in stressing on what he calls the "gluttability of human wants", has said practically the same thing.

II

Liquidity-Preference.—The distinctive feature of Mr. Keynes' theory is the liquidity-preference theory of interest. According to him the mistake in the older theories consisted in their exclusive attention to consumption and saving and their ignoring of the other important question as to whether the individual wants to hold his savings in the form of cash or interest-yielding assets. The rate of interest is the price "which equili-

brates the desire to hold wealth in the form of cash with the available quantity of cash—which implies that if the rate of interest were lower, *i.e.*, if the reward for parting with cash were diminished, the aggregate amount of cash which the public would wish to hoard would exceed the available supply, and that if the rate of interest were raised, there would be a surplus of cash which no one would hold. If this be correct, the quantity of money is the other factor which, in conjunction with liquidity-preference, determines the actual rate of interest in given circumstances." Interest represents the sacrifice entailed by holding money.

Now the liquidity-preference idea is not very different from the demand-for-money idea and bears some relation to what is called the income-velocity of money. But there are important differences. The conception of income-velocity of money carries with it the notion that the demand for money as a whole is proportional to income whereas it is only that part of the public demand for cash which is due to the transactions and business motives that is proportional to income. The demand for cash arising from the speculative motive is not a function of income but of interest. But the older monetary theory failed to explain how the total stock of money was divided between liquid resources (held for security and speculation purposes) and active circulation, and hence the velocity of circulation was not properly explained.

Even in regard to the demand for money, no attempt was made to separate between the various types of demand and to distinguish between the influences operating on each type of demand. It was thought that the demand for money was entirely a function of income, which was the famous Cambridge equation $M = kI$. But this theory when applied to an analysis of industrial fluctuations gets into serious difficulties. If changes in k are due to changes in confidence, etc., k ceases to be an independent variable.

According to the liquidity, preference equation of Keynes, the rate of interest is determined by the desire of people for liquid reserves (hoards) and the quantity of money available for that purpose. The quantity of money available for that purpose is equal to the quantity of money in existence less that required for active circulation for the transaction of current business. The rate of interest is the factor which adjusts at the margin the demand for hoards to the supply of hoards.

In the opinion of some, for example, Prof. Viner, Keynes has grossly exaggerated the influence of one type of liquidity-

preference, *i.e.*, hoarding and its influence on the rate of interest. But, is it not true that each is right and has stressed things applicable in different circumstances? In normal times when the more important influence on the demand for money is the level of income, the influence of hoarding is not much. It is so abnormal a phenomenon that it is not necessary to deal with it. Statistical information in U.S.A. points to its real insignificance in ordinary times. That was why traditional theory ignored it. Even so the theory was defective in that it failed to establish a proper relation between the quantity of money and rate of interest but sought to determine income without determining interest.

But in a crisis hoarding becomes a significant factor. If the quantity of money does not increase, liquidity-preference shows itself in a sharp rise in the rate of interest. Even in other times uncertainty as to the future yield of interest is a cause of hoarding and a major determinant.

Again the criticism is advanced that Keynes has exaggerated the importance of "cash" as being the only means of satisfying the propensity to hoard. In normal times it is true that there is a widely prevalent aversion to the waste of cash. But when confidence is upset, there is no temptation to change over from cash to assets.

It may also be conceded that liquidity-preferences can be satisfied by the holding of non-investment assets. The monetary mechanism of a country is capable of furnishing the means of satisfying different degrees of liquidity. Again the fact that if uncertainty is a cause of increased demand to hold money, it is also a factor which diminishes the demand for cash from the point of view of transactions motive should not be ignored. But all these qualifications do not more than modify slightly the general conclusion established by Keynes.

III

Interest as a Factor of Investment.

It is somewhat paradoxical that all the increased attention devoted to the problem of interest in recent monetary literature should have only resulted in showing up its comparative helplessness as a factor in stimulating recovery. It is clear that there are definite limitations on the ability of the monetary authorities to lower interest rates below a certain level. But after the rate of interest has fallen to a certain level, every one may prefer to hold cash rather than invest in low interest-bearing securities.

The motive to invest however depends on the profitability of capital goods which, as we saw above, is based on such uncertain factors as risk, unreliable forecasts and conventional judgments.

While a low rate of interest is generally regarded as a necessary condition for the high rate of investment which leads on to a boom, there are wide differences of opinion as to how far investment is generally elastic to interest rates. The Macmillan Committee was of the view that the elasticity of investment to a fall in long-term interest rates was very appreciable, and hence definitely recommended the increase in the quantity of credit with a view to bringing about a fall in interest through a rise in the prices of long-term securities. But later experience seems to modify the high hopes entertained by the Committee. It is felt that the volume of investment depends rather upon the total real income of the community and its rate of change than upon interest.

Mr. Keynes' own diagnosis supports this point of view. It has been pointed out that investment depends in large part upon the demand for consumption goods, *i.e.*, upon the propensity to consume which, as has been seen above, is dependent on the level of income and not on the rate of interest. The principle of the Multiplier would also point to the same conclusion. As pointed out by Keynes, the demand for money to satisfy the income and business motives is quite irresponsive to any influence except the actual occurrence of a change in the general economic activity and the level of income, in other words, of aggregate demand. Expanding markets and consumption and aggregate demand must increase if investment is to increase, and hence though interest is not altogether a factor to be ignored, it is only one of the several independent variables of investment.

The element of uncertainty about the future level of prices and prosperity makes investment even more irresponsive to the rate of interest. In static conditions in the absence of uncertainty, lower interest will cause the employment of more capital both extensively and intensively. But when future output is uncertain and when fixed costs are likely to prove a heavy burden in periods of low output, investment will not be undertaken whatever be the level of interest. Hence under dynamic conditions there is no reason to believe that a lowering of the rate of interest will by itself cause increased capital investment.

Mr. Harrod and a few others go too far in denying to interest any influence at all on investment. To quote Harrod's own words, " The most essential part of my theory has already been presented; yet the rate of interest and monetary policy, usually

deemed matters of central importance, have so far received only passing references. This is no accident, but fairly represents the balance of my opinions." The principle of relation or acceleration has been wrongly stated by him in a form so as to imply that it is a constant multiple of the rate of growth of consumption and not of the rate of change of income. Even when so modified, the acceleration principle cannot be accepted without great qualifications. When industry has large excess capacity, an increase in aggregate demand may not cause additional capital investment. If the expansion in demand is not expected to last a long time, it will not have any influence on investment decisions which are usually undertaken on the basis of a long term demand. Further if interest rates are high or if capital is difficult to obtain, investments would be put off.

All these however go only to emphasise the limited influence of low interest rates on investment when aggregate income is falling. In periods of depression low interest rates can do no more than enable entrepreneurs to complete projects already started, but no fresh enterprise will be undertaken. A decline once started could not be easily reversed merely by making capital cheap. Hence any useful influence of interest can only be felt at a much later stage when recovery is in sight.

On the other hand when boom conditions have started, rising interest rates would be absolutely helpless to check the boom. Expanding markets, high marginal efficiency of capital and optimism would stimulate investment unchecked by even a considerable rise in interest rates. But if interest rates are pushed up very high, they would check enterprise. Such a course would however involve the entire break-up of the capital market and start a decline which could not be arrested.

Thus viewed from any point of view, the rôle of interest in the determination and control of interest is very limited. In America a study of a large number of individual cases has definitely established the fact that interest rates are seldom considered to be a serious factor in entrepreneurs' decision to expand or contract and that interest rate is a contributing factor only in a very negligible number of cases. Thus inductive enquiries have only fortified the main conclusions of theory.

INTEREST AND THE COMPLEX OF PREFERENCES

BY

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Recent discussions on the theory of interest have accorded a considerable amount of importance to the psychological propensities which induce the average man to behave in one particular way in preference to another. Böhm-Bawerk's analysis of *Time-preference* has been considerably extended in our times, and it has come to be realised that time-preference is only one of the complex of preferences that actuate people to hold wealth in one form rather than in another.

Böhm-Bawerk was dealing with a fundamental trait of the human mind when he tried to make a comparative study of the present value of present satisfaction and the present value of future satisfaction. His real objective was to apply the marginal-utility apparatus to the study of interest, and all that he wanted to prove was that the current marginal utility of present goods would generally be higher than the current marginal utility of future goods. The result of this would be to increase the supply of present goods and to decrease that of future goods. And, consequently, future goods would not be forthcoming unless an *agio* were paid to overcome the people's unwillingness to postpone present gratifications. Expressed in the language of present-day economics, Böhm-Bawerk's theory comes to this: Our calculation of long-term expectations is vitiated by our optimism about our future resources and our tendency to minimise the intensity of our future wants. Consequently, we are unwilling to hold our resources in the form of long-term assets which will yield a satisfaction only after the lapse of a specified period of time. Interest is the payment necessary to induce us to convert this unwillingness into a willingness.

Time, thus, is the main factor in Böhm-Bawerk's analysis. On the one side, interest measures the difference between the marginal utility of present goods and that of future goods, and, on the other, the time-consuming system of production with capital increases output, thus enabling the borrower to pay the agio. Interest *has to be* paid to compensate for the *time discount* to persons with a choice between the holding of present goods and

of future goods, and interest *can be* paid because of the *time-premium* created by the roundabout methods of capital-using production.

Time-preference as such is purely subjective, and different persons under different circumstances will save different amounts at the various rates of interest. The main difficulty is that of objectivising the subjective value of time-preference. Though apparently an explicit variable, time-preference is the compound of a number of implicit variables. The habits and the customs prevailing, the distribution of wealth, the sensitiveness of the people to income-differences, the "state of expectations," the "state of confidence," the size of the family and the banking structure are only some of the factors which go to multiply the difficulties of obtaining a precise quantitative measure of time-preference.

II

Keynes goes much further than Böhm-Bawerk. The place of importance that was given by the Neo-Classical writers to the marginal productivity of capital as a determinant of interest has been rejected by him on the ground that the marginal productivity is itself a function of the rate of interest. As he puts it, the marginal efficiency of capital depends on the *expectation* of yield on the one side, and the *current* supply price of the capital asset on the other. But the product from capital is realised not in the period immediately following its application, but over a series of years. The real measure of the marginal efficiency of capital will, therefore, be the present *discounted* value of the series of future returns expected from the application of the marginal dose of capital. This discounting naturally takes place at the current rate of interest. If the marginal efficiency of capital is to be conceived as a discounted value of future expectations, it becomes necessary to know what the rate of interest is in order to determine the marginal efficiency of capital. According to Keynes, therefore, all that the schedule of marginal efficiency of capital tells us is not what the rate of interest will be, but what is the point to which new investment will be carried, given the rate of interest.

The Neo-Classicals, according to Keynes, are also at fault in assuming a continuous variation in the supply of savings in response to changes in the rate of interest. This assumption can be valid only under the absurd condition of a constant level of incomes. It is easy to realise that a rise in the rate of interest

will discourage entrepreneurs' investment, leading to an all-round fall in the level of incomes. There will, therefore, be in such a case an increased *propensity* to save, but the actual *power* to save will diminish. The supply curves of such *ex-ante* savings have thus to be continually redrawn after every change in the level of incomes.

Keynes explains that two types of preferences determine the broad distribution of our incomes among different uses. First, our time-preference determines how much of our income we shall use for current consumption and how much we shall reserve in some form of command over future consumption. This is only a reiteration of Böhm-Bawerk's analysis in terms of the propensity to consume and the propensity to save. But mere saving is not sufficient to bring interest into being. Among the subjective conditions of saving, Keynes takes into account Precaution, Foresight, Calculation, Improvement, Independence, Enterprise, Pride and Avarice.[1] A study of these motives makes clear the fact that interest is not always necessary to induce the people to save. The amount saved may be held in the form of cash and it may be hoarded, and in such a case, from the standpoint of interest-bearing, the savings have been sterilised. Interest arises only when people are ready not to hoard the amount that has been saved, *i.e.*, interest is the reward of *not-hoarding* the *not-spent* part of the income. The propensity that leads an individual to hold the unspent part of income in the form of liquid cash is called by Keynes *Liquidity-preference*, and interest is regarded by him as the reward that will induce the holders of cash to overcome this preference.

The rate of interest regarded as a reward for parting with liquidity for a period of time is the price that equilibriates the desire to hold wealth in the form of cash with the available quantity of cash. A rise in the rate of interest will considerably overcome and decrease the preference for liquidity and there will, therefore, remain a surplus of cash which no one will be willing to hold. Again, a fall in the rate of interest will make lendings less worth while, leading to an increased liquidity-preference and a greatly increased demand to hold balances in the form of cash. The rate of interest is thus a function of the supply of liquid cash on the one side and of liquidity-preference on the other. Broadly, in equilibrium, the normal rate of interest is that rate which will just induce the people to hold in the form of cash the available amount of cash. The supply of money, therefore, is

1 Keynes, *General Theory*, Ch. 9.

an important factor in determining interest, and, only when a particular monetary system can be taken for granted, interest can be said to depend primarily on liquidity-preference.

Subjectively, the preference for liquidity depends on what Keynes calls the transactions-motive, the precautionary-motive, and the speculation-motive. From the objective standpoint, it may be noted that all assets from cash money to long-term investments have a certain degree of liquidity. This liquidity depends on (a) the length of time that will elapse before the full value of the asset can be realised, (b) the risk of loss of the whole or a part of the value of the asset on account of accidents, default, etc., and (c) the probable amounts obtainable if the asset has to be liquidated before the expiry of its full term. The risk-factor depends partly on calculation and partly on the state of confidence. During a boom, Keynes points out, the popular estimation of the magnitude of risks in general is apt to become unusually and imprudently low. On the other hand, during a period of prolonged depression, the estimation of the risk-factor may be unusually and undesirably cautious.

III

The risk-factor may, however, act in a way different from that ordinarily expected. Harold Barger has tried to analyse a peculiar psychological propensity which he calls *Risk-preference.*[2] According to Keynes, the risk element has a direct influence on the preference for liquidity. A large element of risk will mean a weak state of confidence, and consequently, liquidity-preference will increase in such a case. *Per contra,* when risk is small, confidence increases and liquidity-preference decreases. Barger, however, points out that some risks are borne unwillingly or only for adequate compensation. These risks are by-products of economic activities in general, and, hence, these are borne to the extent that is justified by actuarial calculations within practicable limits. On the other side, there are some risks which people willingly bear, and these risks are deliberately created so that people may satisfy their desire of bearing them. Even the average purchaser of a lottery-ticket realises that the actuarial value of his probability of getting a prize is lower than the price of his ticket, but, in spite of this, thousands are willing to bear such risks. The market for loanable funds may be affected by periodic waves of intensified risk-preference, and this will

[2] *Journal of Political Economy,* Chicago, June, 1938, pp. 396 ff.

generally tend to temper down the preference for liquidity. There are assets with different degrees of risk associated with them, and if at any time risk-preference increases, liquidity-preference will become smaller as a result.

Three different *preferences* are thus found to operate upon the rate of interest: (a) *Time-preference, i.e.*, the desire to hold assets in the form of present goods rather than in the form of future goods, (b) *Liquidity-preference, i.e.*, the propensity to hold assets in the liquid form and the unwillingness to part with liquidity, and (c) *Risk-preference, i.e.*, the desire to apply savings for bearing risks deliberately. In the first two cases unwillingness is overcome by interest, but in the third case interest is an additive factor increasing the willingness to bear risks that would have been borne even without the inducement of the *current rate* of interest.

In itself, risk-preference does not introduce any great difficulty. It only goes to modify the preference for liquidity, and the liquidity-preference curve may be so drawn as to include implicitly the incidence of risk-preference. In drawing the demand-curve for petrol it is natural to make the curve relevant to the variations in the prices of motor cars. Similarly, risk-preference can be made to merge into liquidity-preference, and the modified liquidity-preference curve will annihilate the difficulties seeming to have been introduced by the preference for risk-bearing.

IV

As an explanation of the basic nature of interest the liquidity-preference concept is unique. The way in which Keynes has developed his thesis leaves the impression that a cogent theory of interest has been formulated and that interest defined as a resultant of the demand to hold money and the supply of money is the last word in this branch of the science.

And, yet, as one reads the *General Theory* carefully, doubts begin to appear. One can understand and appreciate Keynes' subtle logic in his definition of the marginal efficiency of capital as the present discounted value of the series of future returns expected from the marginal application of capital. But his contention that the discounting at the current rate of interest would turn the marginal productivity theory into a circular reasoning does not appear to be convincing. We can point out that there is a world of difference between " arguing in a circle " and emphasizing a mutual interdependence. In the market for loanable funds, interest is not stabilised at a stroke; it oscillates from

one position to another, and ultimately the oscillations may be expected to cease when the interest and the marginal efficiency of capital have become equal to one another. Instead of saying like Keynes that the marginal efficiency of capital is a function of the interest rate, it is better perhaps to stick to the proposition that interest and the marginal efficiency of capital are both functions of the same set of factors. To find out x, when x discounted at the rate r is equal to r itself is not in the least difficult, and there is nothing wrong in holding that the oscillations and automatic correctives will make the rate of interest and the discounted marginal product of capital equal to one another. One has also to note that when liquidity-preference is unaltered and the monetary system is stable, a new invention or something else may increase the physical productivity of capital and this may affect the demand for funds without affecting liquidity-preference. This independent increase in the physical productivity of capital will undoubtedly have its effect on the rate of interest. Keynes has been perhaps a bit too unceremonious in rejecting altogether the direct effects of the marginal efficiency of capital upon interest.

Recently, Millikan has analysed all the different senses in which the term liquidity-preference has been used in Keynes' text.[3] *Substantially*, liquidity-preference has been defined as the propensity to hoard and also as the actual demand for idle balances. *Formally*, the liquidity-preference curve has been taken to be, *inter alia*, (a) a curve connecting the total demand for money to the various rates of interest, in a given situation of incomes, expectations etc., (b) a curve in which the demand for money as a function of interest has been separated from the demand for it as a function of income, and (c) a curve representing a series of equilibrium positions drawn on the basis of a *unique* equilibrium level of income corresponding to *each* rate of interest.

It is certainly this third meaning that Keynes has in his mind in defining liquidity-preference. The idea underlying this has been very ably expressed by Lerner, and we can do no better than quote his remarks on the subject.[4]

> For each scale of investment there is a corresponding level of income. This is determined by the propensity to consume. For each level of income there is a corresponding supply schedule of saving (with

[3] *American Economic Review*, June. 1938, pp. 247—260.

[4] *Economic Journal*, June, 1938, pp. 215-216.

respect to the rate of interest). Thus, for any particular rate of interest, there is a particular scale of investment measured by the abscissa of the point corresponding to that rate of interest on the investment-curve and a particular supply-schedule of saving showing how much would be saved at different rates of interest if income were at the level corresponding to the particular scale of investment. This supply schedule of saving will pass through the investment schedule at the point on the latter corresponding to the particular rate of interest, so that the two curves will have this point in common. All other points on the particular supply schedule of saving are illegitimate and may be left out of the picture, because they contradict themselves in assuming a rate of interest other than that which forms the postulates on which the whole curve is constructed.

If the word "lending" be substituted for "saving" in the above, it becomes immediately recognisable as Keynes' theory. The difficulty in regard to these preferences is thus not one of conception, but one of quantification. Liquidity-preference is at best a propensity, and there is no definite scale by which this propensity can be objectively expressed. The assets in terms of which people hold their balances can be of different grades of liquidity, depending on the period of maturation, the probability of capital-depreciation and the possibility of accidental losses. Liquidity-preference will thus be different for different types of assets available. Again, as Hicks points out, the long-term rate of interest must lie above the short-term rate, for the former has to allow for the risk that the short-term rate may rise during the currency of the loan.[5] All this indicates that in the market there must be operating at any time a complex of rates of interest, corresponding to the different grades of liquidity-preference. As the state of expectations and the state of confidence alter, there takes place a substitution between assets with one grade of liquidity and those with another: this is perhaps the only link tending to bring the different rates into a dependence on one another, when a sufficiently long period of time is allowed for.

But, as our studies in the theory of interest mainly relate to the short-period, the complications are no doubt increased. If different assets have different degrees of liquidity according to

5 *Econometrica*, April, 1938, pp. 146—149.

their periods of maturation, their riskiness or otherwise and their chances of depreciation, it no longer remains possible to formulate a *general* theory of *the* rate of interest in terms of a general liquidity-preference. For, *the* rate of interest, if it means anything at all, is not certainly the average of the rates ruling in the market, nor is the general liquidity-preference an average of the preferences for liquidity with reference to the different grades of illiquid assets. The time-factor, again, creates another uncertainty, for, liquidity-preference *vis-à-vis* a six-month loan will not surely be related to liquidity-preference *vis-à-vis* a twelve-month loan in an exactly arithmetical proportion. The latter will have to allow for a higher preference margin on account of greater possibility of fluctuations on the short-rate. It may, therefore, be necessary to find out *co-efficients of liquidity-preference* with reference to different types of assets. The rate of interest can be related to liquidity-preference only when we have been able to study the nature of illiquidity of different types of assets, and the way in which the marginal rate of substitution between different assets is operating.

V

The liquidity-preference doctrine opens up interesting lines of theoretical speculation. If interest can be explained in terms of a psychological propensity, it ought to be possible to apply the same technique in explaining the pricing process of other services than that of capital. For example, one may suggest the formulation of a *leisure-preference* theory of wages depending on the basic fact that wages are paid to labourers to induce them to part with leisure. Marshall drew attention to the dependence of the supply of anything on the overcoming of the unwillingness to undergo the discommodities of labour and of the sacrifice involved in putting off consumption. Proceeding *a la* Keynes we may formulate the theory that the unwillingness to undergo the discommodity of labour creates a demand for leisure, and that the wage-rate prevailing at any time is the rate that brings into equilibrium this demand for leisure and the actual amount of leisure enjoyed by the labourers other than those who are 'involuntarily unemployed.'

It is possible to proceed on the same lines with the general theory of value. The sellers' *holding-back-preference* should be as much an important factor in determining value as is the lenders' liquidity-preference in determining interest. Wicksteed's communal scale is an attempt to give an objective expression to

the relative scale of preferences that may prevail under particular circumstances. Recently, Hicks and Allen have considerably elaborated the ideas of Wicksteed by their detailed study of the *marginal rate of substitution* between commodities.[6] What Keynes' theory suggests in this connection is that value and exchanges would depend, not only on the preference of each for the other man's goods, but the preference of each for holding back his own goods. This holding-back-preference is the reciprocal of the elasticity of substitution. An attempt may perhaps be made to find the place of this preference in the determination of value.

These digressions are not made to prove that the liquidity-preference theory is incorrect, but only to prove that it does not carry us far. It is one thing to explain the nature of a phenomenon, and it is quite another thing to show how it comes into actual being. Our preference for liquidity of balances tells us about the basic nature of interest and the psychology underlying it, but it tells us very little about the determination of interest rate in a real market for loanable funds, and still less about the complex of rates under dynamic conditions. By emphasizing the propensities of the lenders, Keynes has surely explained the the nature of interest as an inducement. His theory is perfectly logical as a theory of the *nature of interest*, but it is not certainly a theory of the rates of interest as actually *determined* in the market.

6 *Economica*, February and May, 1934, pp. 52—76 and 196—219.

INTEREST, WAGES AND PROFIT-SHARING

BY

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The Classical Economists classified the factors of production under three heads, land, labour and capital. The net proceeds of industry were supposed to be distributed among these three factors only. As J. S. Mill remarked, "The three requisites of production are labour, capital and land. . . . Since each of these elements of production may be separately appropriated, the industrial community may be considered as divided into land-owners, capitalists and productive labourers. Each of these classes, as such, obtains a share of the produce; no other person or class obtains anything, except by concession from them."[1]

The modern economic analysis has adopted a four-fold division of the factors of production land, labour, capital and enterprise. The peculiar function of the last factor is to take the risk and bear the uncertainty of the business. Uncertainty is, as Pigou suggests, "an independent and elementary factor of production standing on the same level as any other of the better known factors."[2] The net profits of an industry are claimed as the share of this factor.

In reality the earnings on the count of risk taking form part of the income accruing to those who invest their capital in the business. As a matter of fact, if we give up fruitless distinction between land and capital, the income arising out of any industry is primarily divided into two categories:—(1) those who provide in one form or the other the material equipment necessary for the industry, and (2) those who provide the necessary human labour in one form or the other. Distinction could be made between capital and labour permanently invested in a particular industry, and capital and labour temporarily employed in it.

Risk taking is inseparable from the investment of capital in an industry, and in certain respects it is also inseparable from the labour permanently employed in it. The failure of the industry will effect both capital and labour. Capital may be partially or totally wiped off. Labour may suffer temporary or

1 *Principles of Political Economy.*

2 *Economics of Welfare*, p. 770 (3rd Ed.).

permanent unemployment. Risk to labour is clearly brought out in case of the highly technical and specialised knowledge obtained at a great deal of cost and sacrifice in view of certain industrial occupations. Failure of these may permanently cripple the earning capacity of such specialised labour engaged in it. Even ordinary labour is also, to a certain degree, exposed to a similar risk. The nature of risks to which labour and capital are exposed may not be identically similar in every case. But both the factors when invested in a particular industry have ultimately to bear the risk of a partial or total loss of the future earning possibilities.

If this view is correct that the risk taking is ultimately the function both of labour and capital permanently invested in an industry, it will be then reasonable that the net profits of that industry should be shared between the capital and labour so invested in it. Theoretically, ideal basis for the division of the net profits of the industry between labour and capital will be in proportion to the total wage bill on the one hand and the total interest bill on the other hand, the total interest bill being determined with reference to the prevailing rate of net interest, and the wages bill with reference to the prevailing rates of wages for the different types of labour. The share of the profits accruing to labour, if left to the will of the employer, as in case of the old schemes, makes the division of the profits between labour and capital arbitrary and unscientific.

THE RATE OF INTEREST, EMPLOYMENT AND ECONOMIC WELFARE

BY

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The peculiar thing about Interest theory is that interest is a reward which is homogeneous with the source from which it is derived. It is an extra income accruing to the owner of a factor due to the lapse of time and resembling in form the factor itself. Other forms of income, Wages and Rent, may be conceived with reference to a point of time and as categories dissimilar to the source. In a time-less economy, if land and labour combine to produce wheat, the entire amount of wheat is imputed to the factors in question and apportioned according to what is known as the marginal productivity principle. Wheat is here the product or income, and land and labour are the source from which it is derived. In a money economy where all payments are made in money and not in kind, this fact is merely concealed. Where, however, time is involved, and the 'original' factors are to be given 'subsistence' before the product is raised, a discount is made. Land and labour receive less wheat to-day than what they will produce tomorrow. The rate at which this discount is made regulates the rate of interest. The rate of interest is a reward against time,—for time is the essence of capital. If, for instance, the yearly product from a given quantity of land and labour is 520 lbs. of wheat and they are paid only 500 lbs. just at the beginning of the operation, then 4 p.c. is the wheat rate of interest per annum. This is another way of saying that 100 lbs. of wheat to-day sells for 104 lbs. one year hence. In this way one can conceive of a cotton rate, a jute rate, a wine rate and so on. In fact one might draw up a list of as many rates of interest as there are commodities.

2. On the one hand the phenomenon of interest arises from the fact of keeping goods and services for future use. On the other hand it arises from the fact that time elapses between the employment of resources and their fruition, and entrepreneurs require ready materials for labourers' subsistence in the intervening period. Now, obviously, commodities are of all degrees of perishability. Some would wear out quickly, some would keep a longer time, some would of themselves assume higher utility

as time passes. They have also all degrees of utility for productive purposes. Do they, therefore, bear different rates of interest?

In the absence of a general store of value,—money,—surely the charges on different accounts would tend to diverge from one another, just as in a hypothetical barter economy where there are more than two commodities, and when there is no means of comparing the value relation of one set with another, the values emerging in the process of what may be called direct exchanges are not necessarily mutually consistent.[1] It is only when there is a money medium and a possibility of indirect exchange that an equilibrium value relationship between diverse goods can be conceived. Similarly it is only in terms of money that one can conceive of *the* interest rate with reference to a given period of time. When the various elements are resolved into a common denominator, there is no wheat rate or cotton rate as such. Interest is the price of time reduced to homogeneity. Given the scope for arbitrage operation one rate cannot diverge from another for any length of time. Any observed divergence may be attributed to the risk inherent in particular elements. Among the factors that govern the discount for futures has to be counted the risk of fluctuations of individual commodity prices through time. The risk being different for different commodities the commodity rates of interest must necessarily be different. But ruling out the risk element and given the possibility of a comparative estimate of the marginal productivity of time from various sources through a common denominator,—money,—individual sources would surely be adjusted in such a way that the specific price of time in each case might be the same. The conception of interest thus implies the institution of money. Whereas in the case of rent and wages money is required to render the products homogeneous, in interest theory money is required to render the product and the source homogeneous. In giving definiteness to the notion of interest by the marginal productivity of capital, one has not only to assume that the resources are homogeneous, one has to assume further that the yield is homogeneous with the source.

3. This raises a further problem. The conception of the equilibrium rate of interest implies a definite exchange relation between the product and the resources. It is on this assumption of a definite exchange relation between them that Wicksell conceives of a natural rate of interest,—a rate of interest which,

[1] Cf. Wicksell, *Lectures*, Vol. II, pp. 15—18.

if adhered to in the market, would keep the economic system in equilibrium. This concept runs from physical productivity to value productivity. Natural rate is the 'current value of the physical marginal productivity of capital.' The analysis is on an *ex post* basis.

But, as is evident from what has been said above, the conception of capital by itself implies 'time-preference.' The exchange relations between resources and products that are taken to be given in Wicksell's construction themselves depend upon the value of time. As Myrdal points out, "Credit and interest rate must be included in the very construction through which the natural rate is determined."[2] One has thus to leave off the rigid moorings of a natural rate conceived in terms of a barter economy.

4. All this assumes real significance in a dynamic economy where knowledge is imperfect. In a static economy where all price relationships including the relationship between products and resources are in perfect equilibrium,—where, therefore, production and consumption are a uniform and continuous flow, new saving and new investment being absent, time is a non-essential factor. In such an economy money itself is indeed a superfluous institution. In a dynamic economy, however, the future is uncertain and calculations, as they are *ex ante*, depend upon the state of expectations during any period of planning. Time-preference, interest rate, volume of investment—all these are under those conditions related to expectations and must necessarily be conceived in money terms.

The yield of investment is a process through time, and at any moment of planning the rate of interest which is to be taken as a standard for comparison in considering the rate of investment can only be interpreted as the expected rate of yield of investment at the margin. This is what Keynes calls the Marginal Efficiency of capital,—a rate of interest which would equate the present value of the expected net yield of a capital asset in future periods with its supply price, both in money terms.

Now, there is a functional relation between the marginal efficiency of capital as thus defined and the actual rate of interest in the market. If the market rate of interest falls, the rate of investment, other things being equal, increases, capital accumulates and the marginal efficiency of capital falls, for this latter is a function among other things of the state of capital accumula-

2 Cf. Art. Der Gleichgewichtsbegrift als Instrument der geldtheoretischen Analyse, in Beitrage zur Geldtheoric (ed. Hayek), secs 27-28.

tion and economic development. On the other hand, if for any reason the marginal efficiency of capital falls, demand for loans decreases,[3] and, other things remaining the same, the market rate of interest falls.

5. This equality, however, suggests no 'norm' of any significant sort. It is just a stage in the economic process,—a short-period equilibrium which does not necessarily indicate an optimum level of employment and a maximum level of income. With a particular stage of expectations given, the rate of interest, the volume of employment, savings and investment—all these are simultaneously determined during any period, and these in turn influence expectations for the succeeding period. The economic process is a dynamic process in which all these magnitudes govern one another, so that the ultimate shape of the economic system is indeterminate.

Recent analysis in economic dynamics has drawn particular attention to this. It is urged that there is nothing like a 'normal' rate of interest in an absolute sense. Each level of interest conforms to a particular set of economic process, and one has to choose a criterion of ideal economy in order to determine which interest level is to be called 'normal.'[4] A rate of interest which makes for an economic process other than that which conforms to the criterion chosen is to be regarded as unhealthy.

Now, one of the factors governing the rate of interest in the market is the policy followed by banks. The banks either directly through discount policy or indirectly through open-market operations can control the rate of interest. If, therefore, interest level is one of the major governing factors in our economic

3 Which means that there is a downward shift in the demand curve of 'investible funds.' In representing the position I am following what may be called the 'Stockholm approach' which makes the rate of interest dependent upon the demand and supply of loans (on credit). There seems to me to be no contradiction between this and Mr. Keynes' liquidity-preference theory. Demand for credit is governed by the marginal efficiency of capital, and the supply of credit depends upon the liquidity-preference of individuals. If the latter rises, the supply of credit falls, and the rate of interest, other things remaining the same, rises, and *vice versa*. A change in the economic process may be generated by any of these forces.

4 Cf. Ohlin, Some Notes on the Stockholm Theory of Savings and Investment, Economic Journal, June, 1937, p. 222. "Other things being equal, a change in the interest level will cause a different kind of economic development . . . . Which rate of interest one wants to call 'normal' depends on what kind of economic development one considers 'normal' . . . . In brief the rate of interest . . . . which is compatible with the economic development one chooses to call 'normal,' is also normal, and so is the volume of savings and investment which goes with it."

process, banks surely have, for good or evil, the power to initiate changes in that process.

How, then, is the criterion of an ideal economy to be formulated? What is the condition of maximum economic welfare? Here the findings of static analysis might help us. Broadly speaking, if one rules out the rather dubious limitations emphasised by Marshall and Professor Pigou,[5] economic welfare is maximised when (a) the resources of a society are fully utilised and (b) they are distributed among various directions in a way that equates the relative values of goods to relative marginal costs. The former is a question of the *volume* of investment, and the latter is a question of the *nature* of investment.

The so-called classical economics starts on the assumption of given resources and focuses attention on the latter question. The assumption is one of a constant flow of productive powers, and economic analysis resolves itself into the question of a rational distribution of these powers among a variety of products.[6] Even in Marshall's system where the assumptions are less heroic, conditions are set forth which would maintain a constant flow of productive services. Stationariness in the supply of productive factors is itself the resultant of an equilibrating process during which process the factors are allowed to vary. But given time, the supply is brought into equilibrium and we have as a resultant of equilibrating forces a constant flow of resources employed.

In a dynamic economy, however, where the utilization of resources itself is a function of anticipations,—the question of the volume of employment assumes importance. And in recent fears the centre of attention has shifted to this aspect of the economic problem.

In a society where there is unemployment in a really significant sense, the volume of investment has to be pushed up to make room for the unemployed. And this can be done by lowering the rate of interest.[7] It is also urged that the continued maintenance of a low rate of interest is a condition necessary for keeping up investment and employment.

5 Cf. Marshall, *Principles of Economics*, Bk. V., Chap. XIII; also Pigou, *Economics of Welfare*, 3rd Edition, Para II, Chaps. IX—XI.

6 For an explicit reference to the precise conditions of this type of hypothesis, see J. B. Clark, *The Distribution of Wealth*, Chap. V; also Schumpeter, *The Theory of Economic Development*, Chap. I.

7 How precisely the process works through what is called the 'multiplier' is shown in all those writings which are based on Keynes' General Theory. See *e.g.*, Joan Robinson, *The Theory of Employment*, esp. Chaps. III-IV.

But,—it may be asked,—is the volume of investment an index of economic welfare? In estimating economic welfare, can we neglect the direction of employment? The reaction against the so-called classical economics seems to have gone rather too far. Those who pin their faith on the effectiveness of the policy of low interest have often overlooked the fact that interest acts not only on the volume of investment but also on the nature of investment. A low interest, if it increases the volume of investment, is also a powerful instrument in shaping the course of investment. And if national dividend is the criterion of economic welfare, the policy would miss the ultimate end when it results in a maldistribution of resources.

The low interest policy, it is often suggested, should be supplemented by control of investment. But, unless one is prepared for complete socialisation which, of course, raises more complicated issues one must face the fact that it is after all a question of choice, any decision on which would depend one's conception of the relative importance of the two evils,—under-employment and mal-distribution of resources.

EQUITY IN DISTRIBUTION AND INTEREST OF CAPITAL

BY

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It is suggested in this paper that waiting and risk-taking are not so much separate agents or factors of production as conditions of all production; that in case of some factors the waiting (and the risks) may be with large amounts, whilst in case of others it may not be so; that in case of some factors the waiting (and the risk-taking) may be long, whilst in case of others for short periods only; but that it has to be paid for in case of all factors, and therefore the concept of interest can be utilised in the regulation of the prices of all factors of production, whether material or human. We have recently heard a good deal about the function of interest. Mr. Keynes proposes to control unemployment and industrial fluctuations by manipulating the rate of interest. But there, I would humbly suggest, he is trying to regulate not a factor of production, but a condition of production.

The modern theory of distribution (divested of all refinements) lays down that, other things being equal, the remuneration of a factor is determined by the relative conditions of demand and supply; that proximately the influence of demand is much greater, in as much as the remuneration can never be higher than the marginal productivity of the factor; that ultimately the influence of supply is equally important, in as much as the marginal productivity has a reference to a margin or quantity, and the necessary quantity will not in the long run be forthcoming unless the remuneration is adequate to cover its cost of maintenance. If the sale proceeds of an article exceed these necessary costs of its different factors of production, there will be a surplus; which is generally distributed amongst the different factors in inverse proportion to their respective elasticity of supply. When the remuneration of any factor is higher than its marginal costs, the excess is in the nature of rent or an unearned income; and the element of rent will be the highest in the remuneration of that factor whose supply (relatively to the demand) is the scarcest. The surplus or rent is said to be unearned, because, if this surplus is taken away from the factor, the effect on production will be negligible. But, if it is wisely used,

the effect on distribution must be considerable. Naturally the question arises: Is it possible to distribute this surplus more equitably than is the case at present?

At one time equity in distribution aimed at equalisation in the wages of all labour, and similarly in the interest rates of all capital, at least in the long run; the theory of non-competing groups showed, however, that this is not possible even in the long run. At the same time, considerations of equity required that interest rates should become lower and lower, until ultimately they were annihilated altogether; this is not possible either, so long as production is spread over time. Naturally it was believed that the only alternative, at least under a capitalistic regime, would be a constant conflict or bargaining between labour and capital; in which, according to their respective strength for the time being, sometimes one and sometimes the other would be the gainer. If, therefore, a principle can be discovered which would distribute wealth between the different factors of production more equitably than at present, and at the same time be automatic, that would be an immense gain on the present state of affairs, in as much as any possible injustice under the latter would be rectified, and the incidental cost of securing the justice would also be averted.

All production is spread over time; and therefore all factors have to do a certain amount of waiting, and necessarily undertake certain risks. It is not correct to say that capital is invested in production goods only; it is invested in all factors of production. It is certainly invested in the enterpreneur, and equally certainly in those who supply labour for the production of wealth. All factors take a more or less crystallised form; all factors have therefore to wait and take the risks of business; in case of some factors the waiting may be shorter than in case of others; some factors can be decrystallised earlier than others; but the use of all factors involves waiting and risk-taking. In case of what we call production goods, the capital is forthcoming generally from people who do not themselves supply the production goods; in case of labour the capital is generally supplied by the persons who themselves provide the labour. In case of production goods, the capital required may be considerable but is generally required for a shorter period; in case of labour, the capital is much smaller but is generally required for a longer period. But whether the factor of production is material or human, capital and waiting are required in all cases. If capital is invested in a plough or a machine, it is also invested in the field labourer or the factory worker who looks after the plough or the machine. The greater

the life-time of the crystallised factors, the longer is the capital locked up, and the greater must be the waiting; and the only way in which they can be decrystallised, and converted into liquid assets, would be by the sale of the articles into which (so to say) they get ripened.

The longer therefore the life of a particular factor, the longer the period before it can reassume a completely liquid form, and the longer the waiting. If the life of a particular machine is 10 years, or that of a particular type of labour 30 years, the total earnings in either case should be such as to recover during the period the principal invested in the factor together with interest on that principal for the period of waiting. What exactly the costs of production and repairs in connection with each factor will consist of, it is not necessary at this stage to discuss in detail. In case of labour, however, it may be pointed out that the necessary costs will comprise not only the necessaries of life and efficiency, but also certain conventional necessaries and comforts which are habitually enjoyed by the workers of a particular class or by the members of their family.

If, after this capital has been provided for with interest in case of each factor, there be any surplus, it should be divided amongst the different factors not in proportion to their scarcity, but in proportion to the amount of capital invested in each. After allowing for repairs, depreciation and interest, what remains can only be a payment for undertaking the risks of the business; and this payment should be made according to the amount of capital invested in each factor.

The whole argument boils down to this. All production involves waiting. The waiting is partly done by labour and partly done for labour. Because the rich spend and invest separately, they are allowed interest for waiting done for labour. Because the poor spend and invest together, they do not receive any interest for waiting done by themselves. This is hardly fair. It is as much disutility to save and invest in consumption capital (which one may not otherwise want, or wants less than other consumption goods) as to save and invest in production capital. When a workman invests in himself or his child, *e.g.*, in vocational training, it is not always for any direct satisfaction he is likely to receive. Unless therefore he is paid for this deliberate preference, he may be inclined to invest less in and spend more on himself, which would be detrimental to the interests of the society.

If this line of argument possesses any validity, the workman will not gain by any proposals which aim at the abolition of

interest. Capital is invested in all factors, and interest should be paid to all factors of production. In fact the labour working in a factory automatically becomes a share-holder in the concern; and therefore the question before us is not whether interest should be abolished, but that it should be universalised and extended to all the factors of production.

To sum up, it is usual to regard the claims of capital and labour as antagonistic in the sense that the gain of one cannot but be at the expense of the other. And perhaps this is bound to be the case in the short period, when the remuneration of each factor depends on its marginal productivity and therefore on its scarcity. In the long run, however, this need not necessarily be the case. Contraction of supply of any factor upto a point may raise its marginal productivity and its remuneration; but any further contraction of the factor will be generally accompanied by a contraction in the National Income, which is bound ultimately to react on the remuneration of the factor. There is not much to gain and a great deal to lose, therefore, by a further contraction in the supply of the factor. And once this is recognised, the doctrine of marginal productivity fails us in securing an equitable distribution, and is more likely than not harmful to production. It is proposed in this paper to substitute in its place another doctrine; *viz.*, that beyond the minimum supply price of the factors, distribution between them should be in proportion to the quantity of capital invested in them. This simply means that both material and human capital should be supplied on business lines. Every factor should receive not only its contractual price based on conditions of demand and supply but also interest in the short period, and its minimum cost of production (inclusive of interest) in the long run; when there is a surplus remaining after the contract prices and the interest have been paid, it should be distributed between the different factors of production not according to their relative scarcity but according to the quantity of financial capital invested in each. Only under a scheme like this will capital and labour receive their due rewards, and a fair standard of living will determine fair wages; for at present in many cases a high wage rate determines an unfair standard of living, and a high interest rate is paid to the material factors at the expense of the human factors.

I am conscious that in this paper many ideas have been left undeveloped in order to bring out the outline of the scheme. What exactly are the costs of production of different factors, especially the convential necessaries and comforts to be included

in the standard of living of different classes of workmen; at what rate is interest to be allowed; should the risks be paid for at a uniform rate in case of all factors or at varying rates; these are questions I am not attempting to answer in this paper. But the broad scheme remains, *viz.*, that if capital is invested in each factor, the remuneration of each factor including labour must contain an element of interest; and if, after each factor has been paid thus, there is a balance or surplus, it must be distributed more or less according to the amount of capital invested in each.

LEGISLATION FOR THE RELIEF OF INDEBTEDNESS

BY

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In different provinces legislation has been passed in recent years and in some provinces some measures are under consideration with a view to afford relief to those who are heavily indebted. An attempt is made in this paper to analyse briefly the principal remedies recently adopted in most of the provinces. We are too near the event yet to be able to study the effects of this legislation, though an attempt will be made to examine the general possibilities of the same.

The legislation may be broadly classified as under:—

(1) Control of moneylending.

(2) Scaling down of old debts.

(3) Liquidation of old debts.

(4) Restrictions on the transfer of land.

(5) Other measures.

I. Control of Moneylending.

The principal features of this measure are:—

(*a*) Definition of a moneylender.

(*b*) Registration or licensing of moneylenders.

(*c*) Regulation of accounts.

(*d*) Regulation of interest.

(a) *Definition of a moneylender.*

In Bengal, Assam and Bihar the definition of a moneylender is broad, inasmuch as, according to the legislation passed in these provinces, the moneylender is a person who advances loans.

In Bombay and the C. P. the definition of a moneylender read along with that of a loan excludes the registered banks, co-operative societies and the Government. In these two provinces, therefore, institutions which are already subject to legislative control and are properly organised are not further controlled by the new legislation regarding indebtedness. The object in all provinces obviously is to regulate private moneylending which has not been organised and which by its very nature causes various difficulties. It is possible that the broader definition of the other provinces mentioned above may be amended in due course.

Along with the definition of a moneylender the question arises whether all the advances in money and kind should be treated as loans. Whereas the legislation in most provinces is not clear on the point, the Madras Act excludes "an advance made by any person not having for its primary object the lending of money, if such loan is advanced in the regular course of business." This attempt to distinguish between different types of loans with a view to bring under control usurious loans as compared with ordinary loans which arise from modern business transactions is useful. In the light of the experience in Madras, the other provinces may in due course have an object-lesson to amend their legislation in this connection.

(b) *Registration or licensing of moneylenders.*

The registration of moneylenders is compulsory in Bihar and the C. P. only. The registration fee in Bihar is Rs. 25 the certificate of registration being valid for five years. In the C. P. the fee is Rs. 18, the certificate of registration being valid for four years. The Bombay Bill provides for the licensing of moneylenders. The annual license duty varies according to the capital employed by the moneylender, being Re. 1 when the capital does not exceed Rs. 2000, rising to Rs. 1000 when it exceeds Rs. 10 lakhs. If a moneylender does not possess a license, he is not allowed to seek the assistance of the courts in enforcing his claims, and has to pay a fine for default.

The proposed Bombay arrangements for licensing money-lenders will in the first instance bring some income to the Government, and at the same time machinery will be provided by which we shall have information, which will enable us to classify moneylenders according to their capacity. It may also be the beginning of a step which may make it possible to link certain classes of moneylenders with the Reserve Bank under certain

conditions. It appears that for the purpose of the legislation regarding the relief of indebtedness the registration or licensing of moneylenders is an essential step. It is to be hoped that the other provinces will adopt similar measures.

(c) *Regulation of accounts.*

According to the legislation, moneylenders are required to maintain proper accounts. The moneylender is under an obligation

(1) To maintain regularly a detailed account in respect of every loan advanced and every transaction made.

(2) To furnish in a prescribed form a statement of accounts signed by himself or his agent showing the outstanding amount of principal and interest, and the amount and debt of every payment received from the debtor.[1] The debtor ot whom such a statement is submitted is not bound to acknowledge or deny its correctness, and his failure to protest is not by itself an admission of the correctness of the statement.

(3) To pass receipts for payments. In Bihar receipts have to be given also for articles pawned with their description.

Provision has been made in the legislation for adequate penalty in cases where the provisions relating to the keeping of proper accounts are contravened by a moneylender. The penalty takes the form of a fine or imprisonment, or deduction of interest due from the debtor or compensation to the debtor in some other form and so on.

(d) *Regulation of interest.*

The rates of interest which can be charged are also laid down in the different provinces which may be summarised as under:

[1] This has to be submitted on demand in Bengal, Madras and Assam; once in six months in the Punjab, and annually in the rest.

Rates of Interest prescribed by law.

Provinces.		Secured.		Unsecured.	
		Simple interest.	Compound interest.	Simple interest.	Compound interest.
Madras	... ...	$6\frac{1}{4}$	...	$6\frac{1}{4}$	...
Bombay	... ...	9	prohibited	12	prohibited
Bengal	... ...	15	10	25	10
Punjab	... ...	12	9	18	14
Bihar	... ...	9	prohibited	12	prohibited
C. P.	... ...	7	5 with yearly rests.	10	5 with yearly rests.
Assam	... ...	$12\frac{1}{2}$	prohibited	$18\frac{3}{4}$	prohibited

In the U. P. the rates of interest are regulated with reference to the amount of the loan, the rates being lower as the amount is larger. These new rates apply to transactions made after the U. P. Agriculturists' Relief Act of 1934 came into force. So far as the loans incurred before the Act came into force are concerned the Government notifies the rates of interest allowed from time to time. The following tables indicate the rates thus laid down:

Rates of Interest on new loans since 1934 in the U. P.

Amount.		Secured.		Unsecured.	
		Simple.	Compound.	Simple.	Compound.
Rs. 500 and under	...	$5\frac{1}{2}$	3	$10\frac{1}{2}$	$7\frac{1}{2}$
Rs. 501 to 5,000	...	$4\frac{1}{2}$	$2\frac{1}{2}$	8	6
Rs. 5,001 to 20,000	...	$3\frac{1}{2}$	2	$6\frac{1}{2}$	$4\frac{1}{2}$
Over Rs. 20,000	...	$2\frac{1}{2}$	$1\frac{1}{2}$	5	$3\frac{1}{2}$

Rates of Interest allowed for old loans for the period 1-4-1930 to date in the U. P.

Amount.		Secured.		Unsecured.	
		Simple.	Compound.	Simple.	Compound.
Rs. 500 and under	...	$9\frac{1}{2}$	7	$13\frac{1}{2}$	10
Rs. 501 to 5,000	...	$8\frac{1}{2}$	$6\frac{1}{2}$	12	9
Rs. 5,001 to 20,000	...	$7\frac{1}{2}$	6	$10\frac{1}{2}$	8
Rs. 20,000 and over	...	$6\frac{1}{2}$	$5\frac{1}{2}$	9	7

Except in the U. P. which makes a specific provision for rates to be applied to old debts transacted before the Act came into force, in other provinces the rates which have been laid down apply to transactions made after the particular Act came into force. The Bombay rate is still not in operation because it is still in the form of a bill. In Bihar the courts are empowered to reopen old transactions to relieve the debtor of all liability in respect of any interest in excess of the maximum rates as laid down above in a suit in respect of a loan advanced before the commencement of the Act.

A provision closely allied to the regulation of interest rates which is common to most of the provinces is the application of the rule of Damdupat. This rule means that no court shall decree on account of arrears of interest a sum greater than the principal of the loan given after the commencement of the Act. In Assam, the Punjab and Bihar this rule applies also to loans advanced before the recent legislation was passed. In Bengal and the C. P. this rule does not apply to loans advanced before the legislation was passed if the court is satisfied that the money-lender had reasonable grounds for not enforcing his claims earlier. In the U. P. the rule of Damdupat does not apply. It has been laid down, however, that when the aggregate of interest realised or accrued on loans advanced after the commencement of the Act becomes equal to the principal, the rate of interest allowed is one notified by the local Government as the prevailing rate at simple interest on secured loans and at 2 per cent above that for unsecured loans.

In spite of the reduction, the rates are fairly high in some cases, looking to the prevailing rate at which money can be had in the cities. Besides, the disparity of rates from province to province is remarkable. These tendencies show the absence of a well-organised money-market in the country and also the limited sphere in which the Reserve Bank has to function.

II. Scaling down of old debts.

Two different methods have been tried for the scaling down of debts, voluntary and compulsory. The compulsory method is of recent origin adopted by some of the Congress Governments in a few provinces. The voluntary method which has been in vogue in some provinces in the last few years involves the establishment of Debt Conciliation Boards. Such legislation existed in Assam, the Punjab, Bengal, C. P. and Madras. The Debt Conciliation Boards have a statutory existence and have certain powers of civil courts, such as, to compel the attendance

of persons, and the production of documents, and power to receive evidence. The registration of the agreement of amicable settlement has the force of a decree of Court. The creditor is not compelled to give up his claims, but if he refuses a fair and reasonable offer, the Board may disallow the cost in any subsequent proceeding pertaining to the same and any interest in excess of 6 per cent from the date of the certificate of the Board. Besides, if a creditor who has been asked to submit his claim fails to do so, his claim is treated as duly discharged and if he does not produce any document, it becomes inadmissible thereafter. Provision has been made by which the benefit of this legislation be confined mainly to agriculturists of an average status. So far as the position of creditors *inter se* is concerned, in the Punjab an amicable settlement can be effected between a debtor and any of his creditors, but a certificate can only be granted if the creditors to whom not less than 40 per cent of the total debt is due have come to a settlement. In the C. P. a certificate can be granted if creditors owing 40 per cent or more of a debtor's debt come to an amicable settlement.

The compulsory scaling down of debt is the chief feature of the Madras Agriculturists' Relief Act recently passed. For this purpose, an agriculturist is defined as a person who has a saleable interest in any agricultural or horticultural land in the province. The method of scaling down of debts as laid down by the law is not affected by any other law, custom or agreement to the contrary. In case of old debts incurred before 1st October, 1932, (1) all interest outstanding on 1st October 1937 shall be deemed to have been discharged and only the principal will be payable, or (2) if the payment on account of principal or interest or both is twice the amount of the original principal, the whole of the amount shall be deemed to have been discharged, and if the payment is less than double the principal, only the balance shall be paid. In the case of debts contracted after 1st October, 1932, the amount of the whole transaction shall be made up at 5 per cent simple interest on the original loan, and the balance after deducting all payments shall only be payable. The rates of interest on debts so scaled down shall be $6\frac{1}{4}$ per cent, the rate which shall also be payable on new loans hereafter incurred.

In the C. P. new legislation has been proposed by which the former voluntary method of scaling down debt will be replaced by the compulsory method. Provision has been made to establish debt relief courts whose duty it will be to reduce interest and principal in accordance with the scales laid down. The jurisdiction of the courts can be invoked by debtors only. The rates of

interest laid down for this purpose are—$4\frac{1}{2}$ per cent compound interest with yearly rests; 6 per cent simple interest on secured debt and 9 per cent simple interest on unsecured debt. The scale of reduction of debts is laid down as under; if the debt was incurred before 31st December 1925, 30 per cent; if the debt was incurred after 1st January 1926 but before 1st October 1929, 20 per cent; if the debt was incurred after 1st October 1929 but before 31st December 1930, 15 per cent. It may be pointed out that these percentages were fixed with reference to the estimated fall in the value of land.

Though the method both in Madras and C. P. is compulsory there are differences in details. The Madras method is apparently simple and is expected to work on the basis of a formula laid down by law. Litigation will be necessary only if the parties do not agree in the application of the law to their case. In the C. P. the scaling down of the debt itself is subject to a legal arrangement which will therefore be more thorough, but at the same time will involve more trouble and delay to the parties concerned.

Similar legislation for scaling down debts does not exist in other Provinces. This does not mean that the problem is not acute in those provinces. It may mean that the vested interests are stronger or that the Government is not yet strong enough to face the opposition that such measures will arouse.

III. Liquidation of old debts.

Once the amount of the debt is settled either on the voluntary or the compulsory method, the next question is that of liquidating the same. In fact the very object of scaling down the debt is to enable the debtor to pay it off in reasonable time. It is obvious that if the creditors are able to obtain cash the scaling down of the debt will certainly be easier, but unfortunately the debtors are not always in a position to pay cash even at the reduced figure.

The Land Mortgage Bank can play a useful part in this connection. Such a Bank may lend money for a long period on adequate security. It may either pay down the reduced debt immediately or pay the instalments to the creditor.

In order that the Land Mortgage Banks are able to do this work successfully there should be on the one hand a large number of such banks spread over throughout the country with adequate State support. Though the step taken in some provinces to organise Land Mortgage Banks is in the right direction, their number and their resources and consequently their work is still

of a limited character compared with the magnitude of the task facing them.

The following table shows the number of Land Mortgage Banks in different provinces by the end of 1936-37:

Provinces.	Central.	Primary.	Total.
Madras ...	1	93	94
Bombay ...	1	13	14
Bengal (1935-36) ...	...	5	5
U. P. ...	...	5	5
Punjab ...	...	12	12
Bihar ...	...	...	...
C. P. ...	...	12	12
Assam ...	...	...	...
N.-W. F. P. ...	...	...	...
Orissa ...	...	...	...
Sind ...	...	...	...

Under the able guidance of the Late Sir Ramchandra Rao, the Madras Presidency has been far ahead of others in the matter of banking institutions of this type. There are primary land mortgage banks in every district except in Malabar and South Kanara where legal difficulties came in the way. The Government increased the amount of debentures guaranteed as to principal and interest to 150 lakhs and the amount advanced during 1936-37 was 141 lakhs. The rate of interest charged to the ultimate borrower was 2 per cent higher than the borrowing rate of the Central Bank which was 3 per cent during the same year.

IV. Restrictions on the Transfer of Land.

Attempts have been made in the past to prevent land being transferred to the ownership of non-agriculturists on account of the indebtedness of agriculturists. The Punjab Land Alienation Act of 1900, which also applies to the N.-W. Frontier Province, and which has been amended several times, the Bundelkhand Land Alienation Act of 1903 and the C. P. Land Alienation Act of 1916 are illustrations.

Under the Punjab Act certain ancestral cultivating clans are notified. The C. P. Act is limited in its application to aboriginal tribes only. Under these Acts, alienation of land is allowed

only in those cases where the alienor is not a member of the agricultural tribe, or where both the parties belong to the same tribe or to a tribe in the same group. In all other cases, the sanction of the Deputy Commissioner is required. Any sale in contravention of the Act is valid and takes the form of usufructuary mortgage.

It has been further laid down that usufructuary conditional mortgages and leases are not allowed for a period exceeding twenty years. By a recent amendment of the Punjab Act, it has been laid down that this limit cannot be extended in any case by any device. Another amendment of this Act provides that no land belonging to a member of an agricultural tribe shall in execution of a decree or order of any civil or revenue court be leased or farmed for a period exceeding 20 years.

Witnesses from the Punjab before the Royal Commission on Agriculture were of the opinion that this legislation was successful in its main object, namely, to prevent the transfer of agricultural land from cultivating to non-cultivating clans.

With the exception of recent amendments to the Punjab Act referred to above, no steps have been taken to revise the existing legislation or to extend it to other parts or to other classes of agriculturists. This does not mean that the problem does not exist elsewhere, though there may be differences in degree.

V. Other Measures.

(*a*) Some protection to the agricultural debtor is provided in the Civil Procedure Code by which his implements, cattle and seed grain required to earn his livelihood are not liable to attachment and sale.

(*b*) The C. P. Debtors' Protection Act and the Bombay Moneylenders' Bill provide for the protection of debtors from molestation and intimidation by the creditors for the recovery of debts.

(*c*) The Insolvency Law affords relief to debtors under certain conditions. But its provisions have been found unsuitable to agricultural debtors. The Royal Commission on Agriculture recommended a Rural Insolvency Act. Some of the difficulties in this connection have been removed in the Punjab by reducing the amount for which an insolvency petition can be made. In Bengal, however, under the Agricultural Debtors' Act of 1935, the Conciliation Boards are empowered to declare a debtor insolvent when his debt is so high as cannot be repaid within 20 years. In settling the debt the dwelling house and

one-third of the land held by the insolvent debtor in his direct possession exclusive of the land occupied by his dwelling house, with a minimum of one acre of land is exempt from sale in satisfaction of his debt.

Conclusions.

This brief summary of the attempts made in different provinces for the relief of indebtedness shows that the authorities are now fully conscious of the gravity of the situation and are anxious to take some steps. Though fundamentally the problem in each province is substantially the same the difference in the methods adopted reveal the differences in the local situation in each province as well as to some extent the outlook of the Government of the day.

Restriction of Credit.

One thing which stands out most clearly is the fact that steps of this nature are likely to restrict credit. The agriculturist cannot do without credit because of the nature of his profession, and if these measures come in the way of his future work they will defeat the purpose for which they have been made. To some extent restriction of credit may also be a boon to the agriculturist inasmuch as it is well known that a large part of his debt has been hitherto for unproductive purposes. If the agriculturist realises out of sheer necessity the need for not going into debt for unproductive purposes some good will have been done. For productive purposes the conditions in future are likely to be difficult, but the agriculturist may reasonably hope to obtain credit particularly if he has a security to offer. This is so mainly because the moneylender even under the new restrictions would like to see his money properly employed, if possible. A tendency for capital to migrate from rural to urban areas has been observed and this may have been partly due to this legislation. But the avenues of profitable employment of capital in urban areas are not many at present. In the absence of any such alternative, therefore, the moneylender may be compelled to continue his business even though under certain restrictions.

The need for a comprehensive approach.

The relief of indebtedness, in one form or another, may not be desirable unless it is simultaneously accompanied by other steps. The object of this relief obviously is to put the agriculturist on his legs, to start him on a new career, to enable him to do his work more cheerfully, to assure him a fair return on

his labour and to create an interest in life for him. But these things require other efforts in the absence of which the agriculturist may once again relapse into a state of indebtedness. Compulsory consolidation of holdings, prevention of fragmentation of holdings, co-operative farming, co-operative marketing along with other improvements in rural life should go hand in hand with measures of relief of indebtedness.

Unless a comprehensive approach to the problem of rural economic life is made, and several aspects attacked simultaneously and vigorously, success may not be realised. The standard of life in our villages has become so low, that it is difficult to create an impetus for self-help, if the various forces working against improvement are not checked at a time. If we want to see that our efforts in one direction are not negatived by evils in other directions, we must beware in time. In view of the neglect of generations, we are face to face with a problem which is both desperate and baffling. But it is exactly because of these reasons that the remedies shall have to be heroic and courageous on the one hand and comprehensive and thoroughgoing on the other.

Suggestions.

If a complete scheme of rural development can be launched so that all the essential reforms can be carried out without delay, and adequate self-help on the part of the agriculturist be thus guaranteed, one may go to the length of suggesting that (1) those debtors for whom it is impossible to pay their debts within reasonable time should be allowed the facilities of a Rural Insolvency Law; and (2) in the case of others, the State should take over the responsibility for the reduced debts, and allow the agriculturist to have a fresh lease of life. This can be done by the State issuing bonds to the creditors, paying the interest on the same, through the machinery of the Land Mortgage Banks. The lands of the debtors would be mortgaged to the Banks as representing the State, the instalments to the Bank being spread over a number of years.

Before launching any such scheme inquiries will have to be instituted to ascertain the position of debtors. There will be some debtors in each province who can with a certain amount of ease pay their debts in full. There will be another class of debtors who would be in a position to pay only if the debts are scaled down to a reasonable figure. And perhaps the largest number of debtors will be those whose cases are desperate, and who are not in a position to pay at all, and therefore must be brought under the operation of a Rural Insolvency Law. Though some

attempt was made by the Provincial Banking Enquiry Committees to make estimates of indebtedness in different provinces, these were not sufficiently detailed, and they were made from a different point of view. Besides, these estimates have become out of date by now. If the benefits of any such scheme as outlined above are to be properly availed of, such systematic inquiries are an essential preliminary, which no provincial government seems to have thought of hitherto. In fact there is a want of confidence in such inquiries among some of the responsible ministers now in power. Perhaps experience alone will make them realise the value of such scientific inquiries on which alone sound legislation can be based and successfully carried out. Hasty steps may lead to undesirable consequences which should be avoided when we are dealing with large masses of people. The co-operation of Universities and Economists in such inquiries if properly organised would be invaluable. Whereas the Bureaucratic Government in the past systematically avoided Economists and their studies in this country, the Responsible Governments now in power may find it both easy and cheap to institute such inquiries through the medium of the Economics Departments of the Universities.

In addition to this, simultaneous arrangements will have to be made for providing adequate credit facilities through co-operative banks for the current needs of the agriculturist. Conditions will have to be laid down to see that the facilities thus provided are used to proper advantage and not for unproductive expenditure. In other words, the agriculturist will have to be taught to behave in a responsible fashion in his own interest, if the benefits suggested here are to do him any permanent good. This is as it should be, because unless such safeguards are provided the temptation to treat these benefits as windfalls and therefore to run once again into debt will be overpowering.

It is obvious, therefore, that the working out in greater detail of a scheme of this nature will require a large organisation and expenditure on behalf of the State. But the Provincial Governments who are determined with one voice to improve the lot of the agriculturist must be bold enough to face such expenditure and undertake such organisation. It should be realised fully that the problem of the Indian farmer has become so acute, that it cannot be solved by piecemeal legislation of a half-hearted nature though undertaken with the best of intentions. What is required is radical measures of a comprehensive nature put into effect with a determined effort without undue delay.

THE MADRAS AGRICULTURISTS' DEBT RELIEF ACT

BY

DR. B. V. NARAYANASWAMY NAIDU

AND

P. VAIDYANATHAN, M.A.

" Princes and Lords may flourish or may fade;
A word can mar them as a word hath made;
But a bold peasantry, their country's pride;
When once destroyed can never be supplied."

—GOLDSMITH.

The central fact in Indian rural economy is the appalling poverty and the grinding need of the population; and the extent of indebtedness is the index of the alarming condition to which poverty has reached. The average income of the agriculturist in Madras is estimated at Rs. 15 per head. It is not an exaggerated remark when the Royal Commission on Agriculture said " In India agriculture is, with most cultivators, with uneconomic holdings, more a mode of living than a business." The observation of the Simon Commission made in 1929 is more true to-day than it was then. " The low standard of living to which the mass of India's population attains is one of the first things that strike a Western visitor. Wants are few, diet is simple, climate is usually kind, and a deep-rooted tradition tends to make the countrymen content with things as they are. But the depth of poverty, the pervading presence of which cannot escape notice, is not so easily realized." In spite of his inability to pursue agriculture as a profitable business, the agriculturist will not abandon his calling out of his own free will; for the abandonment of the farm means the abandonment of the home. Forced to live a squalid life with his poor income, which has been made poorer by the severe depression in the prices of agricultural commodities, he is groaning under a heavy load of debt, which is staggering. No real progress is possible, no new policy of planned economy for the development of the country can be successfully launched, unless the agriculturist classes, the custodians of our national wealth, who form 80 per cent of the population are relieved of their distress by removing the ever-crushing burden of indebtedness and by devising means to increase their income and consequently their purchasing-power.

Mr. W. R. S. Sathyanathan, Special Officer, appointed by the Government of Madras to enquire into the question of rural indebtedness in the Presidency has made a modest estimate of the volume of debts at Rs. 200 crores. Debt per head of population is Rs. 42 and this has no relation to the income of the agriculturist which is only Rs. 15 per annum. Interest at 12% per annum calculated on the entire debt of the Presidency will amount to Rs. 24 crores a year, while the net agricultural income (after deducting from the gross income, the cost of cultivation and the land revenue) comes only to Rs. 40 crores. The agriculturist cannot be expected to pay the whole of the interest due annually and the accumulated interst swells the volume of indebtedness. The total landed assets of the Presidency are now only five times the debts. Hence the seriousness of the problem of indebtedness which deserves our first and foremost attention before any scheme of reconstruction. Before any remedy is prescribed to this chronic disease, the real causes of indebtedness must be analysed.

Causes of Indebtedness.

The root cause of the indebtedness of the Indian peasant is the insufficiency of his income which is the result of uneconomic holdings, lack of attention to improved methods of cultivation, manuring, irrigation or the introduction of seasonal crops, lack of marketing facilities, the high mortality and the low vitality of the Indian cattle and the frequent failure of crops due to bad seasons. The size of the average holding in Madras is ridiculously low compared with other countries.

		Average size of holdings.
Madras	...	3 to 4 acres.
England and Wales	...	62 „
Denmark	...	40 „
Germany	...	21·5 „
France	...	20·5 „
Holland	...	26 „
U. S. A.	...	148 „

While the holding of the Madras peasant is uneconomic, the return from his land averages only from 2 to 5 per cent in a normal year with average prices. But in India normal seasons are not very common. Mr. Darling reckons that a cycle of five years will give one good year, one bad year and three normal years. In a survey conducted recently in some of the villages

of the Cuddalore Taluk, it has been found that in a large number of families crop expenses have increased over the income from the land. When a ryot borrows, especially, in a bad season, he is not able to repay the debt and the debt gradually mounts up with the accumulated interest. In course of time a pro-note debt is converted into a mortgage debt and finally the creditor takes possession of most of the ryot's lands. The result is the Indian peasant is " born in debt, lives in debt, dies in debt and bequeaths debt." The effect of this burden of ancestral debts is inefficient production. The feeling that he will have to sow for others to reap damps the ardour even of the most enthusiastic. At present the small returns from land and ancestral debts are not causes and results but are of mutual causation.

Unproductive expenditure on marriages, social ceremonies, factions and litigations contributes to the rapid growth of the volume of debt. It is usual to exaggerate the expenses on marriages. Normally marriages and ceremonies come at long intervals in an individual's life. It is but natural that the miserable peasant should have some diversion. The percentage of this kind of debt compared with others is very low.

Lack of cheap credit facilities accentuated the pace of growth of debt. In Madras secured debts usually carry 12 per cent interest but the rate on unsecured loans is 18 per cent to 24 per cent. The Marwaris usually charge 18 per cent to 50 per cent simple or compound interest and penal interest at a higher rate. During the investigation in some of the villages in Cuddalore Taluk it has been found that the *sowcars* of Kurinjipadi who supplied the villagers with money, usually charged 6 pies for a rupee for a month or 37½ per cent but 9 pies for a rupee for a month or 56¼ per cent was not uncommon. It is only the usurious rates of moneylenders that have swelled the volume of debts. While Government *taccavi* loans and Co-operative Societies accounted for only 7 per cent of the total debts, the moneylenders are responsible for 93 per cent of the debts. It is no wonder, then, that agriculturists are so heavily indebted.

The growth of population has some effect on indebtedness. Madras now holds more people than Great Britain and between the years 1921—31 recorded a lead of 10·4 per cent while Bengal and the U. P. registered only an increase of 7·3 per cent and 6·7 per cent respectively. The increase in population is outstripping the increase in the area of cultivation and this results in the dwindling of the area of holding per individual.

To a certain extent the incidence of land revenue influences indebtedness. This is true especially during the depression when

there is a fall in prices and the value of money has increased. The half net theory of the Government according to one writer has become the 'all net theory.'

The following table showing the purposes for which debts were incurred in some of the villages of the Cuddalore Taluk will be useful and clear[1]:—

Purpose of borrowing.	Rs.	Per cent.
Ancestral debts ...	10,155	53
Agricultural expenses ...	2,622	13·7
Trade ...	1,000	5·2
Domestic expenses ...	1,015	5·3
Marriages and social functions ...	1,505	7·9
Buying land ...	300	1·6
Other purposes including payment of land revenue which forms a big proportion ...	2,557	13·3
Total debt of 50 families ...	19,154	100

The money income of the agriculturists fell appreciably as a result of economic depression and this aggravated the burden of indebtedness on the poor ryot. It is a danger to society if the agriculturist, who is engaged in the noble profession of raising the foodstuffs for the nation, breaks down under an intolerable burden. The prosperity of the entire nation is dependent on the well-being of the agriculturist. Therefore, the need is great for scaling down this debt.

Conciliation or Compulsion.

If relief is to be given to the agriculturists by scaling down debts, is it by compulsion or by mutual agreement that debts are to be scaled down? It is said that arbitrary scaling down of debts by the State will lead to a great curtailment of credit and only if voluntary conciliation fails compulsion should be tried as a last resort. Though the effect of compulsory legislation in frightening away credit cannot be minimised, the economic depression itself has impeded credit. Such measures should be looked upon as an attempt to solve a deadlock and if they are successful they will not only be beneficial to the debtor but also to the creditor. The Premier believes that voluntary conciliation will be of no avail in our Presidency for the creditors will never come to terms with the debtors. Moreover, almost every agri-

[1] Figures were collected from the Survey conducted by Dr. B. V. Narayanaswamy Naidu and P. Vaidyanathan.

cultural country in the world has found it necessary during the depression to adopt some compulsory measure of this kind. So long as the people realise that these are only emergency devices they are more likely to do good than harm. In Madras passive attempts were made to redeem the agriculturist by passing in his favour several legislative measures such as the Land Improvements and the Agriculturists Loans Acts, the Co-operative Societies Acts, the Land Mortgage Bank Act, the Insolvency Act, the Debtors' Protection Act, the Usurious Loans Act, the Agriculturists Loans Amendment Act of 1935 and the Debt Conciliation Act of 1936. But these measures did not touch even the fringe of the problem. There is a general complaint that the Debt Conciliation Act was not given a fair trial. Mr. Ramalingam Chettiar rightly replied to this criticism. "Debt conciliation on the basis proposed in the Act is very complicated and relief can be given only in those cases where an application is made by a creditor or debtor. If a large number of applications come in the agency will break down." As conciliation and other voluntary methods have failed the adoption of the principle of compulsion has become inevitable.

Legislation in Foreign Countries and in India.

A study of the various attempts made to solve the problem of indebtedness of the rural population in other countries and in our own will be necessary and useful for a proper perspective of the relief measure in Madras. It has been contended that "the nature of the debt of the South Indian peasant and the conditions of South Indian rural economy are very different from those of the Western Countries" and the time and circumstances under which those measures were adopted also differ from ours. Though much of the debt of the Central European farmers was contracted for the re-construction of farms devastated by the war, one cannot be blind to the enormous suffering of the agriculturists due to the catastrophic fall in agricultural prices after the depression, the heavy interest charges and the increased cost of production which was the result of improvements in farming effected at a time when market conditions were favourable. The result was that the farmer was working on a deficit economy. In Greece, the average income per family was 19,398 drachmas and the average expenditure considered to be indispensable 25,055 drachmas. The condition was similar in most of the European countries. In India poverty and not improvement of agriculture has been the chief cause of indebtedness and the agriculturist was paralysed by the economic depression. But whatever may

be the general or specific causes of indebtedness it is a well-known fact that excessive indebtedness is a common evil. It is injurious at the same time to debtors and creditors and its effects are felt by the whole community. So a study of the measures adopted to eradicate this evil in foreign countries will be of use.

The different measures adopted in foreign countries may be divided into three categories. Certain countries of Central and Eastern Europe adopted radical measures which aimed directly at relieving the farmers from debts. These measures partook of the nature of compulsory conversion of farmers' debts, reduction of the rate of interest and in certain cases the principal by the imposition of law. The second type of legislation pursued a policy of direct intervention but confined itself to narrower limits. This type of legislation is characterised by the repayment of loans by instalments over a series of years, the suspension of the measures of distraint against debtors, repayment by the State of part of the debts and the imposition of minimum prices for the sale of expropriated property. The last type of measures seeks to help the debtors through indirect means by the provision of cheap credit facilities and through measures adopted with a view to raising the prices of principal crops and improving agriculture.

In Germany as a result of the crisis numerous legislative measures were rendered necessary between 1931-32. The floating debts of the needy farmers were replaced by a special loan granted by the Bank for German Industrial Securities. The funds were drawn from the levies imposed on the industries while the Reich guaranteed 25 per cent of the loan granted. Orders were also issued offering protection against distraint by creditors. Where voluntary agreement failed, creditors and debtors were subject to legal process which remitted arrears of interest, reduced interest for the future and even made possible compulsory reduction of principal by 50 per cent. In addition to these and some other measures of the National Socialist Government, there was a proposal for raising to a remunerative level, the prices of agricultural products which, in part, had remained appreciably below the cost of production.

In Italy by a law of 1930 extinction of onerous agricultural debt is facilitated by a conversion of short-term loans into long-term loans payable in 25 years. The State undertook to pay a part of the instalments. Where there are scientific improvements in farming the Minister can grant contributions not exceeding $3\frac{1}{2}$ per cent interest repayable in twenty-five years. Mortgage credit institutions were called upon to replace bonds bearing

more than 4 per cent interest by bonds bearing interest at 4 per cent.

In Switzerland the Government found it necessary to develop a Peasants' Aid Bank, which would give help to the distressed farmers in the form of loans with or without interest and subsidies towards interest; to develop protective measures of a legal nature taken in favour of distressed farmers by the suspension of the repayment of capital, reduction of the rate of interest on secured loans, reduction or suppression of interest on capital sums not secured and extinction of interest due in certain cases; and to prevent new indebtedness by a bill aimed at reducing mortgage debts to a tolerable amount, *i.e.*, to enable the farmer to have a subsistence income for him and his family. In the adjustment of debt proceedings the debtor, creditor and the community would collaborate. While the community would subscribe a certain amount for some years to a fund, the creditor would renounce a part of his credit. The creditor would be bought out by a redemption bond. The Federal Council would have control over the farms and would limit indebtedness in future.

Measures adopted in Denmark, Norway and Sweden were more or less similar to those in Switzerland. But in Finland short-term loans were converted into long-term loans and the land mortgage bank was reorganized. The State not only guaranteed the bonds but subsidised them. Loans were granted up to 90 per cent of the value of the farm. If the farm was forcibly sold in auction it was bought by the bank and restored to the original owner in case he was found fit to assume responsibility. The French legislation was characterised by postponement of repayment to the various classes of debtors.

By a law of 1934 debts of the agriculturists of Bulgaria could be reduced by 40 per cent. The difference resulting from the reduction of debts would be made up out of an amortization fund formed at the Public Debt Office to which the State would assign the proceeds of the tax on vocations and the supplementary tax on total income. The limit of exemption of property for distraint of debts was increased. Some other features of the Bulgarian legislation are spreading of the instalments of repayment over longer periods, postponment of repayment from 2 to 15 years and reduction of the rate of interest. Greece declared a moratorium for agricultural debts in 1930 and followed up to a large measure the legislation in Bulgaria.

Certain debtors in Hungary who got their debts inscribed in the land register of their country were protected from the sale

of their property for three months. The State contributed a sum towards the payment of interest on debts of those persons. The legal rate of interest was fixed at $5\frac{1}{2}$ per cent. An amortization fund was set up for the reduction of debts of certain farmers.

Arrears due to the treasury and other public bodies in Poland were reduced in 1932 on condition of the payment of current taxes within a certain period. Long-term debts to credit institutions were converted and were repayable in 55 years at a reduced rate of $4\frac{1}{2}$ per cent. Long-term debts due to private individuals need not be repaid for a certain period and the rate of interest was also reduced. Short-term debts both to credit institutions and private individuals were converted. In the matter of repayment of instalments and in the reduction of the rate of interest, greater concession was always shown to small land-holders than to big land-holders.

While Roumania and Czechoslovakia followed up the main principles of the Swiss legislation in the reduction of capital and interest, they supplemented those measures with a policy for the reorganization of production at a cost that would leave a margin of profit to the agriculturists. For then only could reduced debt be paid back in future. In Roumania agricultural centres were established and furnished with modern technical equipment for every branch of production with a view to increasing the yield of land. The course of foreign commerce was regulated to find extended markets for Roumanian agricultural products and to increase the price of ceréals. Czechoslovakia prevented speculation in the commodity exchanges of grain by fixing the price of cereals.

Legislation pertaining to moratorium and amendment of civil laws to prevent sale of lands of debtors by auction are characteristic of the measures adopted in Yugoslavia and Latvia. In these two countries and in Estonia and Lithunia provision was made for the conversion of short-term loans to individuals, co-operative societies and private banks into long-term loans. Land Mortgage Banks in certain cases and State Agricultural Banks in others were established to take over these reduced debts of farmers. Rate of interest on mortgage loans was reduced considerably.

Only voluntary conciliatory methods in the reduction of debts were adopted in Japan. Associations were formed for that purpose in villages. Passive conciliatory machinery was established in Canada by a law of 1934 to enable farmers, over-burdened with debts but not desperate, to remain on their farms. Farm Loan Laws were amended to increase the total amounts that

could be lent by the Dominion Farm Loan Board and to raise the sum that could be advanced to any borrower from 50 per cent of the value of security to 60 per cent.

The agricultural credit policy of the U.S.A. was entrusted to the Farm Credit Administration, whose aim was to create a system of completely unified credit institutions on a permanent basis, to supply farmers and their organizations credit at the lowest cost and to facilitate the adjustment of the heavy burden of mortgage debts by emergency financing and reduction of the rates of interest. Debt Adjustment Courts would go into each case to decide the deserving farmers. To enable the farmers to make voluntary arrangements with their creditors the Credit Act allowed a flotation loan the proceeds of which could be utilised for the purpose.

It must be noted that when drastic measures are adopted in most countries it is only to give adequate relief to small holders. Ordinary law and the conciliatory machinery give relief to big landowners. Measures which are popular are those which respect contractual obligations. Where radical measures are adopted credit unduly contracts and public opinion strongly reacts rendering necessary the adoption of new measures to calm the people. But in spite of popular agitation various countries have adopted radical measures because they must have found out the futility of conciliation and mediation in the case of small holders.

In the Indian Provinces excluding Madras much attention is being paid to the question of tenancy legislation. In Bihar, Orissa, the United Provinces and Bombay bills are introduced in the legislatures to relieve the tenants from the oppression of Zemindars chiefly for arrears of rent and debts and to enforce their occupancy rights on lands. Regulation of moneylending has been attempted with full or partial success in the Punjab, Bombay, Bengal, Orissa and some other provinces. Debt conciliation boards have been formed in the Central Provinces, Bengal and Bombay. Acts to prevent land alienation were passed in other provinces.

In the Bhavnagar State a Commission was appointed to assess the causes of indebtedness and the volume. On the basis of its report the Durbar, by a debt redemption scheme, sought to liquidate the past debts of agriculturists by advancing loans to each individual ryot at easy rates of interest. The awards of the Debt Liquidation Committee are binding on the *sowcars* and the ryots. It is interesting to note that while the nominal indebtedness in the *sowcar's* books was Rs. 86,38,874, the amount that

was actually paid in composition was Rs. 20,59,473. The reason for this successful liquidation is the immediate cash payment by the State to the *sowcars*. For the liquidation scheme to be effective and permanent, the system of village panchayats was introduced by which the villagers took on themselves the management of their own affairs and were made responsible for the development of the economic welfare of the ryot. In Hyderabad the Land Alienation Act has been made more stringent; and registration of moneylenders was enforced to prevent usury. Debt conciliation boards established for the benefit of a certain class of agriculturists were based on voluntary effort with a small element of coercion for effective working. Further there are proposals to start land mortgage banks and to provide the bankrupt debtors with a rural insolvency Act.

In no Province or State compulsory methods are adopted to scale down debts. Where voluntary methods have failed the State must intervene and compel the creditors to renounce a portion of their claims. The Madras Agriculturists' Relief Act is unique in this respect.

From the Moratorium to the Debt Relief Act.

The first measure of the Congress Government was a Moratorium Bill published in the middle of September, 1937. The Bill was intended to give temporary relief to indebted agriculturists till comprehensive measures were formulated for dealing with indebtedness. Both the period of the Moratorium and its applicability were restricted. The Bill laid down that for a year no suits or proceedings could be instituted against agriculturists whose liabilities under the heads of land revenue, rent and taxes and liabilities to local authorities did not exceed Rs. 400; who had saleable interests in lands; and who derived $\frac{3}{4}$ths of their income from lands. Sums due to Provincial and Central Governments, to co-operative societies, joint stock banks and land mortgage banks were excluded from the operation of the Bill. It was made clear that agriculturists should not be entitled to transfer any immovable property so as to defeat the rights of their creditors.

Though substantial measures of relief were to follow the Moratorium there was great opposition to it. It was said that moratorium was a desperate remedy to which Governments resorted to when their banking systems were threatened with crash by a war or other serious calamity. But in the west such moratory legislation is common. In the Co-operative Conference a resolution was passed that the Moratorium Bill that was

introduced in the legislature should be either ancillary to the Agriculturists' Relief Bill or be immediately followed by such a bill. In the latter case the interval should not be more than three months. But in Greece a moratorium for five years was declared and one year was not too long a period. It was contended that the definition of agriculturists worked great hardship in the case of certain deserving agriculturists, whose income from land was not ¾ths of their total income. A fear was expressed that there would be a shrinkage of credit for seasonal agricultural operations. But such complaints were always made against all radical measures.

Great agitation against the Moratorium forced the Government to drop the idea and to publish in the beginning of December, 1937, the Debt Relief Bill. This Bill is simple and quite different from the Debt Relief Act that has actually come to stay on the statute book.

The object of the Bill is to rehabilitate agriculture, the basic industry of the Province, by relieving the producers of food from the incubus of indebtedness. The main principle of the Bill is that all arrears of interest outstanding on the 1st October, 1937, shall automatically stand cancelled, in the case of all debts incurred by the classes of debtors defined as agriculturists. Where simple interest has been charged at more than 9 per cent or compound interest charged or provision made for penal interest, the debt shall be deemed to be discharged in full if the total sum paid to the creditor, whether for interest or principal, amounts to twice the amount of the principal of the loan. If the amount paid till 1st October, 1937, falls short of twice the principal, such amount as will make up this shortage or the principal amount alone, whichever is less, will be paid to the creditor.

For the purposes of the Bill an agriculturist is one who has a saleable interest in land under the ryotwari or other tenures or a lessee of such lands. The Moratorium Bill did not include the lessees within the scope of agriculturists. Unlike the Moratorium Bill no upper limit of income from land is fixed in this Bill to qualify an agriculturist for the benefits conferred on him by this measure, though such limits are fixed for landholders under the Estates' Land Act and the Malabar Tenancy Act. Those who pay income-tax or profession tax of more than a rupee a year or property or house tax exceeding Rs. 600 a year are excluded from the operations of the Bill. These provisions are intended to ensure that persons following occupations other than agriculture do not benefit by the Bill. The Bill exempts

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the debts due to Governments, Local Bodies, Co-operative Societies and Joint Stock Banks with a membership of more than 500 shareholders. The rate of interest on all future loans is 6 per cent.

Arrears of rent payable in areas under the Estates' Land Act and the Malabar Tenancy Act except arrears of the last two *faslis* shall be wiped out according to the Bill. But the tenant must pay within 15 months of the passing of the Act arrears of the last two *faslis* in full. Otherwise the old arrears will be deemed to be discharged only proportionately to the extent rents are discharged for *faslis* 1346 and 1347.

The provisions of the Bill can be applied to decreed debts. Where a decree is in execution it can be stayed till it is again amended. Sales of movable or immovable property of the agriculturists can be set aside if such sales are made in execution of a decree after 1st October, 1937. The amount in excess of the scaled down amount received by the decree-holder as a result of the sale shall be refunded to the debtor.

The Bill was referred to a Select Committee on the 21st of December. The most fundamental changes made in the Bill by the Select Committee are those regarding interest clauses. The Committee has made a distinction between the pre-depression period and the post-depression period, *i.e.*, debts incurred before 1st October, 1932, when the value of money was less than now and those incurred after that date when the value of money appreciated owing to a fall in prices. The provisions regarding the wiping out of interest were retained in the case of pre-depression debts, while for debts incurred between 1st October, 1932, to 1st October 1937, the rate of interest was fixed at 5 per cent. Where a debt after 1st October, 1932, was found to be a renewal of a debt incurred prior to that date, the debt or any part of it renewed will be dealt with as a debt incurred prior to 1932. Thus the principle of *damdupat* has been retained for pre-depression debts.

The payment of the rent for *fasli* 1347 before 30th September, 1938, was made a condition precedent to the grant of relief to a tenant from arrears of old rent. The rent for *fasli* 1346 must be paid before 30th September, 1939, if the tenants want a full discharge in respect of all arrears of rent accrued for previous years.

Minor changes have been effected in the definition of agriculturists. Women who own no property but who have lent out sums less than Rs. 3,000 are exempt from the Bill. Personal

belongings of a woman, *viz.*, jewels and household furniture should not be taken into consideration when computing the value of the property. Wages due to agricultural and rural labourers were exempted. A mortgagee in possession of the property mortgaged not taking any interest is exempted from the Bill.

For the sake of easy calculation the Committee has changed the rate of interest from 6 per cent to $6\frac{1}{4}$ per cent or 1 pie for a rupee for a month.

Before the Bill was passed into an Act the Government made certain amendments in the Bill and this has resulted in two important changes in the Bill. Where once creditor companies with 500 shareholders and more were exempted, this concession was now limited to scheduled banks of the Reserve Bank provided the interest charged by them was within 9 per cent. In the case of post-depression debts past payments in excess of 5 per cent shall be appropriated only to arrears of interest while formerly reduction of principal also was possible.

The Upper Limit.

The main object of the Act is to rehabilitate agriculture the basic industry of the Province and not so much to give relief to individual agriculturists. It is true that the land is the source from which the food for the people and the raw materials for the factories are produced. It is argued that as the prosperity of other sections of the people is dependent upon the agriculturist and his land, agriculture as an occupation is sought to be relieved from indebtedness. The Premier has often said that it was intended to relieve the industry of agriculture by relieving the burden on land. The burden is actually felt by the person and some ryots feel the burden while others do not. By the occupation test relief will be distributed indiscriminately to both big and small land-holders, to those who need relief and those who do not. A study of foreign legislation will reveal that radical measures were adopted only to save the small holders while the big owners of land availed themselves of the voluntary agreements and other ordinary laws of the land. Even from the occupational test, which pays more attention to the impersonal than to the personal aspects involved, the denial of relief to Jenmies, Zamindars and Inamdars who pay above a certain sum to the Government is not based on correct principles of economics. From this standpoint there is no case for excluding produce-sharing tenants and labourers. In the Tanjore district and other southern parts of the Presidency there are a large number of absentee landlords who lease out their lands and spend their time

in the town. While this class of landowners is relieved there is no justification for excluding Zemindars and Inamdars. To avoid this anomaly an upper limit is essential.

Where are we to draw the line between the big and small landowners? An investigation by Mr. Sathyanathan into 564 families throughout the Presidency has given the following results:—

	No. of families.	Extent of holdings & lands taken on lease.	Assessment paid.	Total debt.	Debt per head.	Debt per Re. of Assessment.	Debt per Acre.	Debt per family.
		Acs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. Farm labourers owning no lands and paying no assessment or rent	23	..	...	1,739	15	...	...	76
2. Registered landholders and tenants paying land revenue or rent of Re. 1 to Rs. 100 ...	306	4,483·03	11,143–8	3,23,438	211	72	29	1,057
3. Registered landholders and tenants paying land revenue or rent of Rs. 100 and above	235	24,738·0	1,35,453–4	10,79,186	918	44	8	4,592

Similar results have been arrived at by an investigation conducted by us in some of the villages of the Cuddalore Taluk. Figures given below are only for 50 families in two hamlets of Ellayappenpettai, Cuddalore Taluk.[2]

	No. of families.	No. of members.	Assessment.	Holdings.	Total debt.	Debt per family.	Debt per head.	Debt per Ac.	Debt per Re. of Assessment.
			Rs.	Ac.	Rs.	Rs.	Rs.	Rs.	Rs.
1. Farm labourers owning no lands	9	62	...	...	932	103–9	15	...	...
2. Registered landholders paying a land revenue between Re. 1 to Rs. 100	38	23	473	170	16,322	430=0	73	96	35
3. Registered holders paying land revenue above Rs. 100.	3	20	395	99¼	1,900	633–0	95	19	5

[2] Figures calculated from the Survey in the Cuddalore Taluk conducted by Dr. B. V. Narayanaswamy Naidu and P. Vaidyanathan in June, 1938.

The burden of debt should not be determined by the amount borrowed alone; for a man with a larger amount of debt may not feel the burden so much as a man with a smaller amount. For the one may be rich while the other poor. The burden of debt is, therefore, to be judged by a comparison of indebtedness to assets. Judged from this standard both Mr. Sathyanathan's figures and the figures collected in our survey lead us to the same conclusion that the hardest hit are the small and medium land-holders paying a land revenue between Re. 1 to Rs. 100. While debt per acre and per rupee of assessment of this class according to our survey is Rs. 96 and Rs. 35 respectively, for those paying a land revenue of Rs. 100 and above the corresponding figures are only Rs. 19 and Rs. 5. But if we take into consideration debt per head they give a false idea of the position. In fact the position is reversed. Debt per head for those paying a land revenue of above Rs. 100 is 95, while for those who pay land revenue between Re. 1 to Rs. 100 it is Rs. 73. So the unwary are liable to be misled. A perusal of the table from Mr. Sathynathan's report will convince one of the correctness of this conclusion. These small and medium land-owning class (paying land revenue between Re. 1 and Rs. 100) who form the largest number of the rural population have settled on land and are the actual tillers of the soil. It is they who really feel the actual burden of indebtedness. It will not be an exaggeration if we call them the backbone of our agricultural industry. If they are freed the industry itself will get great relief. When it is said that relief should be given to this class of agriculturists, it does not mean that the big holders are not suffering. They too are badly hit though not so badly compared with the small-holders. Debt conciliation boards and land mortgage banks are the proper machinery through which they should get relief. The upper limit for this radical measure should be limited to those who pay an assessment of land revenue to Government not exceeding Rs. 100.

Exclusion of Labourers.

It is an imperative necessity that the debts of farm labourers should be scaled down. Though their position is not so grave apparently as can be seen from the tables given above, yet even the small debt per head cannot be repaid by them. A special provision for wiping off their debts supplementing such a measure by exempting movables, *i.e.*, the materials used in husbandry in addition to dwelling house, livestock and the minimum produce for subsistence should be introduced. While there is a case for

inclusion of arrears of rent in this Act, the debts of labourers might have also been included. The Premier has promised to introduce a separate measure for the purpose at the earliest opportunity.

Sanctity of Contract.

Too much emphasis has been placed on the sanctity of contract. It is said that any legislation that destroys this sense of sanctity of contract destroys the roots of social life. But it is an important fact that justice is the basis of contract and in the relation between debtors and creditors where an unconscionable rate is charged by the debtor the sacredness of the contract vanishes into thin air. The debtors and creditors have never been on equal terms and all the Governments of the World have in one way or other violated this principle. The various relief measures in many foreign countries are examples of the violation of the contracts. Even in India the rate of interest was always regulated and laws were passed to enable courts to reopen old transactions. The Deccan Relief Act in many ways transgressed this principle of contracts. The return from agriculture varies from 2 to 5 per cent. To borrow for that industry at a rate ranging from 6 per cent to 50 per cent is very bad economy indeed. If violation of the contract is unjust, the usurious rate of interest is criminal and suicidal. A revision of contract with every change in the volume of money is necessary. Even nations were obliged to violate contracts entered into when, owing to various economic causes, they were unable to respect such obligations. What is true of nations is true of individuals also. After all, men are responsible for these contracts and when these contracts threaten the economic position of the individuals, it is but right that these contracts should be abrogated. So there is a justification for the Debt Relief Act.

The Post and the Pre-Depression Debts.

Not only the most contentious but the most important clauses in the Act are clauses 8 and 9, which provide for the compulsory scaling down of debts and wiping out of arrears of interest. Before proceeding to discuss the provisions it is necessary to see what kind of debts compose the major portion of the indebtedness of the agriculturists. In discussing the causes of indebtedness it has been proved conclusively that ancestral debts form the highest percentage of the volume of debts compared with other debts. (*Vide* figures given from the survey of the villages in the Cuddalore Taluk, page 530.) Statistics given below regard-

ing the purpose of borrowing from three different sources will corroborate the truth that ancestral debts are the heaviest burden on the agriculturists and will also supplement the account given from an investigation in the Cuddalore Taluk.

Tamaraipatti Village—Madura Taluk.[3]

Debts classified according to purpose.		Rs.
Cultivation expenses	...	4,950
Purchase of bulls	...	7,010
Purchase of lands	...	8,825
Improvement to lands	...	1,100
Discharging prior debts	...	37,225
Building new houses	...	11,100
Family expenses	...	11,810
Litigation expenses	...	1,000
Trade	...	2,000
Purchase of a motor car	...	2,500
Payment of kist or lease amount	...	1,110

Sivapuri and Gavarapet Villages—Chidambaram Taluk.[4]

Purposes of borrowing.		Amount. Rs.	Percentage.
Maintenance	...	4,925	11·16
Purchase of lands	...	9,900	22·43
Agricultural improvements	...	2,960	6·71
Purchase of cattle	...	460	1·04
Land revenue	...	690	1·56
Liquidation of old debts	...	10,450	23·68
Marriage and funeral	...	3,705	8·04
Education	...	2,700	6·12
Interest payments	...	850	1·93
Medical	...	169	0·39
Current interest due	...	6,025	12·65
Miscellaneous	...	1,295	2·93

3 The Madras Provincial Banking Enquiry Committee—Investigators' Report.

4 The Problem of Rural Indebtedness—Dr. B. V. Narayanaswamy Naidu and Mr. V. Venkataraman.

Results from 141 selected villages in the Madras Presidency[5]

Purposes of borrowing.		Amount. Rs.	Per cent.
Payment of prior debts	...	44,85,400	25·1
Marriage and other ceremonies		18,80,761	10·5
Land revenue	...	5,84,173	3·3
Relief of distress	...	10,88,377	6·1
Agricultural expenses	...	17,87,457	10·0
Improvements to land	...	7,88,709	4·4
Education of children	...	2,47,337	1·4
Trade	...	23,01,937	12·9
Purchase of land	...	24,74,715	13·8
Construction of houses	...	10,08,416	5·6
Other expenses	...	12,38,384	6·9
Total	...	1,78,85,666	100

The following table prepared from Mr. Sathyanathan's Report gives an idea of the number of cases in which lands were sold or money was borrowed for different purposes. The figures are for the years 1930—34 taking two typical villages for each district of the Presidency except South Kanara and Malabar:—

Year.		Agricultural purposes.	Trade.	Kist.	Marriage expenses.	Discharging of old debts.	Other purposes.	Purposes not ascertainable.
1930: Sales	...	72,705	21,413	5,424	24,743	10,67,453	1,38,475	2,35,274
Borrowings	...	66,575	46,802	2,656	33,042	8,25,425	1,60,630	1,20,169
1931: Sales	...	22,741	5,314	1,380	10,109	13,84,426	70,306	2,09,252
Borrowings	..	31,406	66,182	1,577	17,934	8,85,695	85,592	80,659
1932: Sales	...	43,941	16,046	5,091	11,966	15,29,892	92,063	1,95,002
Borrowings	...	46,831	38,798	1,115	32,988	7,64,965	96,878	2,02,530
1933: Sales	...	46,290	17,662	8,803	11,940	13,54,389	61,546	1,94,726
Borrowings	...	29,064	27,231	3,049	24,492	6,40,839	1,32,634	69,166
1934: Sales	...	33,218	11,473	3,539	22,805	1,15,235	72,816	1,79,168
Borrowings	...	70,664	27,934	975	27,667	6,36,660	75,099	55,483

5 Report on Agricultural Indebtedness—W. R. S. Sathyanathan.

The number of sales and the number of cases in which money was borrowed by mortgaging property or through promissory notes are disproportionately large in the discharging of old debts when compared with other purposes of borrowing. Extreme pains are taken to show that ancestral debts form the largest proportion; for, then only there is a justification for clauses 8 and 9.

In the scaling down of debts the Act draws a line at 1st October, 1932 to divide pre-depression from post-depression debts. It is often asked what is the sanctity of the date 1st October, 1932? There is every justification for fixing that date as the dividing line. The following index numbers of wholesale prices in the Madras Presidency will clarify the point.[6]

Year.		Rice.	Groundnut.	Cotton.
1928-29	...	100	100	100
1929-30	...	90	85	85
1930-31	...	72	55	62
1931-32	...	60	63	56
1932-33	...	56	59	57
1933-34	...	48	39	58
1934-35	...	56	57	63
1935-36	...	59	58	62
1936-37	...	56	62	60

The effect of the depression began to be felt in 1931. It reached its lowest point in 1934-35. As the effect of a pricefall is not immediately felt the year 1932 may safely be taken as the dividing line of pre-depression from post-depression debts.

But the principle adopted in the scaling down of debts is the principle of '*damdupat*' which says that when a creditor receives twice the amount of principal by way of principal or interest towards debts contracted before 1st October, 1932, the whole of the debt will be deemed to be discharged. Thus the principle of '*damdupat*' which is intended to be applied in the case of usurious rates of interest is wrongly applied to slump in prices. If scaling down of debts is to be related to fall in prices alone a ratio between prices and debts should be established and on this basis debts should be scaled down. This has been the principle in some foreign countries. But in Madras it has been proved conclusively that ancestral debts with usurious rates of interest are the heaviest burden on the agriculturists. If this

6 Dr. P. J. Thomas, *Hindu*, January 28, 1938.

burden is to be removed the principle of '*damdupat*' should be correctly applied.

The second class of debts—the post-depression debts—are dealt with differently. In the case of these debts past payments in excess of 5 per cent interest shall go to cover only arrears of interest and not principal though the Select Committee recommended that it should cover the principal also. Here again it is difficult to relate the reduction of interest to any principle. It has no relation either to changes in the price-level or capacity to pay. Moreover, the rate of interest for all future debts is $6\frac{1}{4}$ per cent and as prices are gently rising there is no justification for a lower rate of interest fixed for post-depression debts.

The scaling down of debts on the basis of slump in prices can be justified if the scaling down were to be followed by immediate discharge of the debts. But in the absence of any such facilities debtors will be put to great hardship. For creditors may wait for a rise in prices or they may press for immediate settlement of debts by taking over the lands of debtors. This can, to a certain extent, be mitigated if provisions are made to transfer lands to creditors at the pre-slump prices and to exempt a minimum holding in the case of agriculturists who cultivate their own lands.

But as there are many difficulties in the way of scaling down debts in relation to fall in prices, as conditions in Madras are favourable mainly for the application of the principle of '*damdupat*,' it will be right to revert to the principle of scaling down embodied in the original bill. It may be laid down that all debts contracted before 1st October, 1937, and which carry more than 5 per cent interest simple or compound shall be scaled down on the basis of the principle of '*damdupat*.' For all debts contracted after that date and for all future debts the rate of interest shall be 5 per cent and not $6\frac{1}{4}$ per cent as is laid down in the Act. The Government should have power to change the rate of interest whenever very bad seasons occur. The merit of this principle is that a large amount of old debts will be wiped out and the agriculturist will be very much relieved.

Future Interest.

The power of the Provincial Government to change the rate of interest from time to time is viewed with suspicion. It is feared that it would introduce an element of uncertainty in credit. The principle that a Central Bank or a Reserve Bank should regulate the bank rate and the rates of the money market is

correct. The Government should not interfere in the regulation of such rates. But this principle can be applied in India only to organized credit institutions. The moneylenders in the villages who have no connection with the money market and who have no knowledge of the principle of the money market continue to charge usurious rates of interest. Their rates of interest are not affected either by the rate in the money market or by fall or rise in prices but only by the personal character of the man. Such usurious rates can be regulated only by executive fiat and the Act rightly allows the Government to fix the rate from time to time.

Arrears of Rent.

These form the third class of debts that are scaled down by certain clauses in the Act. Relief that will be given to the tenant will not be immediate because the prompt payment of rent for *faslis* 1347 and 1346 before 30th September, 1939 is a condition for wiping out of arrears of previous *faslis*. It is curious that while the same principle for the prompt payment of scaled down debts is not adopted in the case of ryotwari landowners, such a principle is applied to the poor tenants on the ground that if arrears were wiped out unconditionally, current and future rents would not be easily realized. Moreover, this provision is not related either to fall in prices or capacity to pay. A recalcitrant tenant who can pay his old arrears will refuse to pay them when once he pays the dues for *faslis* 1346 and 1347 within the due date. A poor tenant who has not the capacity to pay the rent for the two *faslis* (1346 and 1347) is pressed hard for his old arrears. Thus great hardship is caused to poor tenants by this clause.

Co-operative Societies and Joint Stock Banks.

The exclusion of the Co-operative Societies is a right move on the part of the Government. Co-operative Societies are associations of borrowers themselves and their object is the advancement of the members and not the earning of usurious rates of interest by exploiting the borrowers. But in the case of credit by moneylenders the interests of lender and borrower are in a manner opposed and the special interests of these men are the exploitation of borrowers for the sake of private gain. If only the Act had included the Co-operative Societies it would have defeated its own purpose. Moreover, the recent policy of the Co-operative Department is the introduction of controlled credit in the Societies in order to improve the repaying capacity

of the agriculturists. The inclusion of these societies will result in a setback to agriculture. The Registrar of Co-operative Societies has already issued a circular to all co-operative institutions that in respect of D class societies no member shall be asked to pay more than double the principal originally borrowed by him; no member shall pay more than the principal plus interest calculated at $6\frac{1}{4}$ per cent from the date of the disbursement of loan; and that 25 per cent of the amount outstanding now may be remitted. Simple interest at $6\frac{1}{4}$ per cent is charged on awards by arbitrators on outstanding loans. But the Registrar's proposals are not mandatory and some central banks and co-operative societies have not given effect to his suggestions. The matter can be set right if the Registrar or the Provincial or the Central Bank enforces these proposals on the societies.

While there was a great agitation for excluding joint stock banks with less than 500 shareholders from the Bill, the Government amendment limiting the exemption only to scheduled banks was a great shock to many banks and individuals. A large number of funds, *nidhis* and small banks are relegated to the same position as the private moneylenders are. In the finance needed to raise crops these institutions form an important link in the chain of rural credit. If institutional credit is to be preserved these institutions should be exempted. To prevent a few big moneylenders forming themselves into joint stock banks a limit may be placed on the number of shareholders. But that limit should not be so high as 500. The provision that past payments in the case of post-depression debts will be appropriated only to interest, has to a certain extent mitigated the serious wrong done to these institutions.

Some Minor Criticisms.

A beneficial feature of the Act is that some women who live solely on a small amount within Rs. 3,000 lent out, are exempted from the provisions of the Act. Orphans and infirm men are in the same position as these women are and they should also be exempted. The Act does not touch usufructuary mortgages. It is but just that when a person enjoys the property for twenty years for the sums he has lent out, the mortgagor should get back his property and the whole amount should be deemed to have been discharged. In the tenancy legislation of some provinces provision is made more or less on the above lines for the discharging of arrears. The Zemindar will be in possession of the lands of the occupancy tenant for some years in lieu of the arrears of rent. After that period lands will be returned to the tenant

and the arrears will be wiped out. No provision has been made to save the debtor from being sold up. As has been already pointed out a minimum holding should be exempted from being attached and a schedule of prices should be prepared at which alone lands could be sold. The Act has no provision to afford relief to the large number of insolvents. The present law of insolvency is so hopelessly complicated and expensive that few agriculturists can take advantage of it to avoid harassment. Provision should be made in the Act for a certain minimum of produce or lands for the subsistence of the insolvent debtor and his family.

A Constitutional Point.

A question has been often raised whether the provincial legislatures, according to the Government of India Act, could legislate in the matter of business carried on by banks. While the regulation of moneylending belongs to the provincial list of subjects, the regulation of banking comes under the sphere of the federal legislature. No doubt Government would have taken legal advice on this matter before proceeding to legislate. But recently a crop of cases has arisen in the various courts of the Presidency questioning the validity of the Debt Relief Act in the case of promissory notes, which are negotiable instruments. A subordinate judge of Kumbakonam in his judgment delivered on September 19th said " Considering the relevant sections of the Government of India Act 1935 together with the legislation in respect of promissory notes and bills of exchange, under the Negotiable Instruments Act, it seems to me clear that the promissory note is a subject-matter which is outside the province of the legislative powers of the Provincial Legislature and therefore it is we do not find any mention of promissory notes or other documents representing notes while we find the word " debt " alone in the Act IV of 1938. The question is whether " debt " coming within that definition of the Act will cover a debt under a promissory note or any negotiable instruments and upon this point there can be no doubt that all debts affected by the provisions of Act IV of 1938 of the Madras Provincial Legislature cannot comprise the debts due under a promissory note or other negotiable instrument coming under the provisions of the Negotiable Instruments Act." If the Act is held not to apply to negotiable instruments the relief that could be granted to agriculturists becomes so small as to make the Act practically a dead letter. Everything depends on the decision of the High Court, which is keenly awaited by many debtors and creditors.

Future of Credit.

The first effect of the Act will be a drastic curtailment of credit and the seasonal agricultural operations will suffer through the drying up of credit. During the survey of some of the villages in the Cuddalore Taluk, it has been found that a good number of agriculturists have left their lands fallow on account of their inability to get credit. Conversation with the village folk of Ellayappanpettai has revealed that the society in Kurinjipady under whose jurisdiction they came was very shy to lend them. The collection of *kist* became very difficult in the villages. A *sowcar* in Kurinjipady said that business became very slack after the Debt Relief Act. Even the *sowcar* thinks twice before he lends out. The Revenue Inspector of Kurinjipady received as many as 15 applications for *taccavi* loans during the course of 15 days in the month of May. This is a very uncommon feature ordinarily. An inspection of the *taccavi* loan ledger in the Chidambaram Taluk Office clarifies certain doubts.

Taccavi loans granted by the Revenue Department in the Chidambaram Taluk.

Fasli or year.	Applications received.	Number sanctioned.	Number rejected.
1944 (1934-35)	9	4	5
1345 (1935-36) ...	3	1	2
1346 (1936-37) ...	8	2	6
1347 (1937-38) ...	10	(Under consideration 1)	9
1348 (1938-39) ...	15	3	12
From 3-7-1938 to 20-9-1938		(Under consideration)	

Chidambaram being a wet area, *taccavi* loans are not popular. In spite of it the number of applications received for only two months after the passing of the Debt Relief Act is nearly double the number of applications received in previous years. We are not concerned here with the rejection of the number of applications or the amount sanctioned. The large number of rejection may be attributed to the inherent defect of the Land Improvement and Agriculturists' Loans Act and the administrative difficulties felt by the subordinate officers. We are interested only to show that due to the shrinkage of credit supplied by moneylenders there has been a rush even to the unpopular *taccavi* loans.

An inspection of the loan ledger of the Chidambaram Loan and Paddy Sales Society supplements this evidence—

	Village Centres.		Amount of loans granted 1937 (January to December).			Amount of loans granted 1938 (Jan. to Novr.).		
			Rs.	a.	p.	Rs.	a.	p.
1.	Kattumannarkoil	...	740	0	0	2,795	0	0
2.	Vlakam	...	3,330	0	0	7,620	0	0
3.	C. Sathamangalam	...	1,150	0	0	1,960	0	0
4.	Orathur	...	1,610	0	0	5,419	0	0
5.	Maduranthakanallur	...	3,599	0	0	6,077	0	0
6.	Maiyathur	...	1,895	0	0	2,802	0	0
7.	Naivasal	...	2,662	8	0	1,854	0	0
8.	Lakshmigudi	...	4,378	0	0	4,560	0	0
9.	Keelnedumbur	...	3,507	0	0	4,347	12	0
10.	M. Odayur	...	5,548	0	0	7,523	0	0
11.	Suravilandur	...	6,474	0	0	3,875	0	0
	Total	...	34,893	8	0	48,832	12	0
11.	New centres started in 1938					20,199	0	0
	Grand Total	...	34,893	8	0	69,031	12	0

This feverish increase in the amount of loans advanced cannot be attributed merely to the expansion of the activities of the Society. If it had not been for the Debt Relief Act, the amount of loans advanced this year would not have doubled. From the figures derived from this Society it cannot be generalised that there is a great turnover of business in the Co-operative Societies. In fact, examination of some of the societies in the Cuddalore Taluk gives a contrary result.

Facts have proved that there is a shrinkage of credit supplied by moneylenders. The question arises whether it is beneficial to the agriculturists. To a certain extent shrinkage of credit will do some good to the improvident agriculturists. But when the co-operative societies and other small banks restrict their credit, then the agriculturists will be at a loss to find money for the seasonal needs of agriculture. To that extent the reper-

cussions of a shrinkage of credit are detrimental to agricultural production. So it is the duty of the Government to rectify the Co-operative movement and consolidate their position in order to enable them to meet the increased demands on their resources.

It is often said that the funds of moneylenders would not be kept idle but would soon find an outlet. Those who are eager to invest will invest their funds in fixed capital in urban areas. Investment in banks, especially at a time when there are bank failures, will not be popular. Many illiterate ryot moneylenders will begin to hoard or buy lands. When the investor becomes a burnt cat, it will take a long time for him to recoup and one cannot expect the moneylender to lend easily to the agriculturists in the near future. In many cases the poor agriculturist who is in dire need of credit will conspire with the moneylenders to evade the law. Investigation in some of the villages has brought to light cases where the professional moneylenders execute pronotes with statutory rate of interest but pay the agriculturists only half the sum mentioned in the bonds. It is doubtful whether pawnbroking comes under the scope of the Act. A number of families have pledged their jewels with the *sowcars* of Kurinjipady for small sums which carry very high rates of interest.

Repayment of Scaled Down Debts.

One of the most sensible criticisms of the Act is that there is no provision to enable the agriculturist to repay his scaled down debts. While, on the one hand, the creditor who is adversely affected is not redressed by immediate payment of the scaled down debts, on the other, the debtor will be harassed by the infuriated creditor who will prefer claims in the court against him. Naturally there will come to stay a large number of landless agriculturists as a result of the Act. A ryot of the Kottavancheri village of the Cuddalore Taluk said during the enquiry that the repayment of loans should be based on instalment basis as in the case of land mortgage banks and that the Revenue Department should take the responsibility of collecting the instalments regularly for the creditors as arrears of land revenue are collected. This method would avoid expenses that would be incurred otherwise if the creditor were to go to a court of law. The Revenue Department is already saddled with too much work and cannot go into the affairs of private transactions. Another suggestion is the time-limit of one year for the repayment of scaled down debts. After that period the civil court, on application by the debtor or creditor, shall decide that the debtor

shall convey and the creditor shall accept, in full satisfaction of the debt, such property as is equal in value to the debts due by him. The value of the property is to be decided on a proportion that is fixed in the case of lands to assessment, in the case of houses and buildings the net annual rental value taken for the assessment of property tax and in other cases the capitalised value of the net income from properties. Where the assets of a debtor are less than his liabilities, the creditor shall accept only such proportion of the scaled down debts that the total assets of the debtor bear to his total liabilities. While this proposal is fine on paper, it does not give an opportunity to the debtor to pay his debts in instalments. The anxiety of the Government to preserve the land from passing on to non-agriculturists will be defeated by this proposal. A proposal is made that the Government should issue bonds to creditors in full settlement of the debts by the debtors and thus transfer the claim on debtors to itself. Debts will be collected in instalments over long periods when the land revenue falls due. But the difficulty is the entire responsibility of liquidating indebtedness falls on the Government. Huge amounts by way of interest should be paid to bondholders irrespective of the debtors paying the instalments. More than this, it will lead to a prolonged enquiry into each and every case before a settlement is made.

It is gratifying to note that Government is making attempts to organise debt conciliation boards throughout the length and breadth of this Presidency to give effect to the relief that is foreshadowed in the Debtors' Relief Act. It is necessary for the Government to issue a notification calling upon all debtors and creditors to file in a prescribed form their claim before the village Munsiff of their villages within an appointed date. This will give an idea of the amount of conciliation work that is to be undertaken, the number of centres where they are to be started and the amount of loans the Government would have to supply to the small and medium holders. Suitable amendment should be made in the Debt Conciliation Act, if necessary, or rules should be framed both under the Agriculturists' Relief Act and the Debt Conciliation Act to enable the latter to effectively undertake the spreading of relief that is thought of in the former.

The Government has provided a sum of Rs. 50 lakhs in the budget for the disbursement of loans to the small ryots in order to enable them to take full advantage of the provisions of the new Act. Moreover, the Government has increased the guarantee in respect of debentures issued by the Central Land Mortgage Bank to a total face value of Rs. 250 lakhs. This is exclusive

of such debentures as the Bank from time to time may redeem. The debentures should be issued for periods not exceeding twenty-five years bearing interest at 5 per cent and less. It is hoped that this will give a scope for moneylenders to invest their funds in these debentures. This increased guarantee goes a long way in providing funds to the big land-holders to pay off their scaled down debts. But the enormous delay in the grant of loans by land mortgage banks must be ended.

Curative Measures.

Though the Act needs improvement in many ways it cannot be gainsaid that this measure is a bold one and unique in its character. No previous Government either in this Province or elsewhere in India has taken so serious a view of the indebtedness of the agriculturists and has been so earnest in bringing forward a measure of compulsory relief. But this Act by itself cannot bring about the economic rehabilitation of the agriculturists. Indebtedness is the result of poverty and in turn aggravates poverty. So the curative methods that are adopted should aim at rooting out poverty. Otherwise debts once wiped out may yet return.

Some of the causes of poverty of the Indian agriculturist are the low-yielding capacity of the land, the steep fall in prices and the heavy incidence of land tax. Under adverse conditions due to fall in prices the half net theory of land tax has been violated. The frequent resort by Government to coercive processes for the recovery of its dues in recent years is an index of the growing distress of the people.

	FASLI			
Coercive processes.[7]	1342.	1343.	1344.	1345.
Demand notices ...	1,174,528	1,499.500	1,527,296	1,382,465
Distraint or attachment of notices ...	132,310	192,160	135,479	125,473
Sale notices ...	82,048	143,344	96,347	94,826
Sale (number of defaulters) ...	11,244	14,655	13,414	13,588

It must be noted that the actual sale on account of default is the index of the capacity of the ryot to pay land revenue to

7 Report of the Settlement of the Land Revenue in the Madras Presidency (Fasli 1345).

Government. The figures are highest for *fasli* 1343 when the depression reached the lowest depth. While *fasli* 1344 registered some recovery, the condition has worsened in *fasli* 1345.

It will be a great boon to the agriculturist if he is relieved of this tax burden to a certain extent. Committed to the programme of Prohibition, which if extended to the whole of the Presidency within three years will involve nearly $\frac{1}{3}$rd (4 crores) of the total revenue, Government cannot think of changing the system of land tax.

An improvement in the income of the agriculturist by raising the commodity prices as in Roumania and Czechoslovakia will prevent the recurring of indebtedness. A devaluation of the rupee will increase the income of the Indian agriculturist. But devaluation is beyond the competence of the Provincial Government and there is little chance of the Central Government supporting such a policy.

The only method possible for the Provincial Government to enable the agriculturist to get an increased income from land is by the improvement of the methods of agriculture and thereby increasing the productive capacity of the land. Better irrigation facilities should be provided to the agriculturist by devising new irrigation projects. Minor irrigation schemes throughout the Presidency should be carefully investigated and efforts made to conserve rain water by adding to the tanks and by improving and repairing them. Fragmentation and subdivision of holdings retard agricultural development to a great extent and land consolidation societies should be formed to undertake successfully the work of consolidation. Provision of subsidiary industries will go a long way in augmenting his income. The full results of an increase in agricultural production can be achieved only by proper marketing facilities.

The primary co-operative society must undertake the above schemes. But the rural society must be re-constructed and revitalised by a process of rectification and consolidation before it takes up this work of improvement. For some time it is necessary to invest the Government with the power of control and supervision over these societies. The society should be organised on a multi-purpose basis embracing the whole life of the village —*i.e.*, not only credit, but methods to improve the yield of land, better marketing facilities and purchase of necessities. "Every avenue of waste should be checked and production should be developed." The system of controlled credit should be introduced in the society. Before a loan is granted by the society the supervising staff and the agricultural demonstrator should go

round the area and ascertain the amount necessary for cultivation. The Society should grant the loan to the agriculturist at the proper time on a cash credit basis. The supervising staff should be careful that the instalments granted are utilised properly. The produce of the ryot should be sold through the sale section of the society. Loans for the improvement of land should be got from the land mortgage bank to which the rural society is affiliated. The sale section of the society will be responsible for repayment of the instalments both to the credit society and land mortgage bank. The society should aim at the controlled expenditure of its members through the recognised stores. This has a salutary effect of lessening the chances of loans being misapplied. An attempt has already been made in our Presidency to start a multi-purpose society on these lines. If the relief given to the agriculturists by the new Act is to be permanent, if debts once wiped out should not accumulate again, Government should encourage the formation of these multi-purpose societies, which will devise means to increase the income of the agriculturists and improve their life.

RELIEF OF RURAL INDEBTEDNESS IN INDIA

BY

ANWAR IQBAL QURESHI.

Approach to the Problem.

It is very gratifying to note that during recent years the problem of relief of rural indebtedness has received increasing attention in this country. This is as it should be; because, as we all know it, India is predominantly an agricultural country where approximately three-fourths of the population is supported by the fruits of the soil. In the fitness of things it is essential that the problems relating to the industry of agriculture should be thoroughly studied and the results carefully analysed.

During the last few years various Provincial Governments have passed legislation to adjust farmer's debts. But I am afraid too much faith has been pinned to such mild measures to suppress the symptoms of such a chronic disease, and, unfortunately, due attention has not been devoted to remove the real causes of the disease. In order to achieve permanent results, it is essential that the problem should be dealt with on a much broader basis.

This problem has been very carefully studied by a Commission in the United States, which was appointed to study the condition of agriculture and to suggest measures for its improvement. As the problem facing India is very similar we summarise some of the observations of the Commission.

Observations of the American Commission.[1]

The Commission laid considerable stress on the importance of studying the problems of American agriculture and its present situation, from a detached point of view. An appreciation of the situation presupposes some understanding of the real difficulties that beset the farmer, his true relation to the body politic, and last, but not least, the state's function in the preservation of the farmer's chief dependence, the land. Another difficulty that has to be faced in studying the problems of the farmer is that the pursuit of agriculture presents some features, so peculiar,

1 *A Report by the Businessmen's Commission on Agriculture*, National Industrial Conference Board, U.S.A.

indeed so unique, that the failure to take account of them must lead to the gravest miscalculations. In the beginning the farmer's aim was to provide the necessaries of life for his own household. He was the outstanding example of self-dependence in modern society. For whatever reasons he may have departed from his original rôle, to engage in the fortunes of business, he has nevertheless, generally speaking, not abandoned his primary object, to provide for his own family. He alone is proprietor and wage-earner, a position of mixed interests that offers a stubborn challenge to both the economist's enquiries and the legislator's programme. We have a peculiar situation. On the one hand, we have a farmer citizen, proprietor of a distinct interest, whose independence it is a part of sound policy to preserve. On the other hand, the farmer owns the soil, in the preservation of which, by aid or control, the public has a peculiar and perhaps more immediate interest than is true of any other kind of property. Obviously measures for relief cannot be cast in the common mould. The individuality of the farmer and the public interest in his property present a conflict without parallel in the field of legislative action or economic control. It constitutes a challenge to modern statesmanship and whatever else may be true, it is clear that the problem will not be solved on conventional lines. Indeed, it is safe to say that, there is no one answer to the common dilemma. If agriculture is to sustain its position of importance, the whole economy of the country must be carefully scrutinised, dirt spots must be removed and the system must be made healthy for agriculture to prosper.

Need of Relief.

That some relief is urgent no one will question who has taken the pain to enquire into the problem. It may be accepted that there are some complaints, for which there is no relief. For instance, there are inherent risks in agriculture due to the nature of the industry. Droughts where canal or well irrigation is not possible or damages done by floods from overabundance of rainfall is beyond the control of the farmer. Similarly some remedies have been suggested that are quite impracticable at the present moment considering the circumstances of the country. For instance, to revolutionise the system of ownership of land and to adopt a collective commercial system of farming. There are some grievances which depend for correction solely or in part upon the farmers themselves, acting in co-operation with each other or individually. No amount of farm relief can set the farmer on sound footing, if he does not manage his business

properly. Relief will be of little help if money is recklessly squandered on social ceremonies in which the farmer indulges too often far beyond his means.

But it is equally clear that there are some burdens and inequalities that are to be alleviated or removed only by outside aid, private or public or both.

Relief may give the farmer a breathing time, but it alone cannot solve his problem. To do that it requires much more than mere relief. In order to put our agricultural economy on a sound basis it is essential that the national economy must be reorganised and scores of other problems must be firmly tackled. For instance, the persistent burdens upon the farmer resulting from wastes in marketing, high costs of distribution, and the increasing disparity between prices at the farm and prices at retail have been intensified since the War. These burdens are partly due to lack of effective organisation and partly to high wage-levels in urban occupation, increased costs of transportation, losses from bad transport arrangements in goods trains and station sheds, and large demand for service accompanying a higher standard of living and fastidious tastes among urban classes.

Certain national policies like the heavy protection granted to a number of industries, and changes in the international trade have also restricted the markets for agricultural products and have also depressed their prices. The over-expansion of agricultural production due to increasing pressure on the soil has led to the exploitation of sub-marginal land. The progressive deterioration of agricultural lands which has resulted from depletion of the soil and erosion has tended to increase agricultural costs by lowering the yields per acre. The persistent increase in crop pests in recent decades has added to these difficulties. In addition to these there are scores of other factors which have been responsible for the bad lot of the farmer. To mention a few, for instance, we find that there has been a general trend of deflation since 1929. There has been an increase in the burden of taxes, especially in indirect taxes for protection, which bear more heavily on the farming classes. High interest rates have also raised the cost of production. And unless and until these defects are remedied, our agriculture cannot be made stable.

But in spite of all these considerations it cannot be denied that some immediate help is necessary, and no other help is needed more urgently than to relieve the farmer, as far as we possibly can, from the heavy burden of debt.

Rural Indebtedness in India.

The problem of rural indebtedness in India is so colossal and complicated that it is hardly possible to discuss it in a small paper.[2]

In 1922, Mr. Darling estimated the rural indebtedness of the country as six hundred crores of rupees. In 1929-30, he examined the problem again and found that it had increased to nine hundred crores of rupees—an increase of fifty per cent in about eight years. Since 1929, the situation has become much worse. Prices of most agricultural products have fallen to very low level. For many commodities the farmers in the quinquennium 1930—35 on an average realised only half the prices of what they had received previously. In order to realise how the farmers were hit during the slump, we have only to look to the phenomenal decline in our exports which mainly consist of agricultural products. The total value of our annual exports declined from an average of 35,351 lakhs of rupees between 1924—28 to an average of 19,860 lakhs between 1929—34.

This steep decline in the export value of our products is not due so much to quantitative decrease but rather to the catastrophic fall in the price of raw materials all the world over. The export value of our cotton decreased from 6,560 lakhs of rupees in 1929-30 to 3,499 lakhs of rupees in 1934-35. During the same period the value of raw jute declined from 2,717 to 1,087 lakhs of rupees; of tea from 2,600 to 2,017 lakhs of rupees; of oil-seeds from 2,647 to 1,054 lakhs of rupees; and of grain, pulses, and flour from 3,479 to 1,184 lakhs of rupees.

In spite of this heavy fall in the prices of agricultural products, and a consequent decline in the income of the farmers, there was hardly any appreciable decrease in their expenditure, especially during the earlier years of depression. This deficiency was made good out of the reserves which in the case of Indian farmers are the gold and silver ornaments of their womenfolk. Since 1931, India has exported gold to the value of over three hundred crores of rupees. This means that most of the reserves are depleted now.

In order that the farmer should be able to remain solvent, two alternatives are open: (1) either his income must be increased, or (2) his expenditure must be curtailed to match his diminished income. Both these points we shall discuss in a later part of the paper.

2 The problem has been fully discussed in my forthcoming book *Indian Agriculture and Its Problems*.

The Burden of Debt.

For the present moment, taking the fall in the prices of agricultural products we can realise that without any additional increase in the amount of debt, the burden has almost doubled. In the period of falling prices, in many instances, the farmers were not able to realise their bare cost of production, and with great difficulty were able to make both ends meet. Any suggestion of repaying their debts was altogether out of question. They could not pay even interest on their loans. As a result the main amount of their debt by the compilation of compound interest alone must have increased tremendously. Even if we ignore the fact that the burden of this debt had increased to double the original amount, due to the fall of prices, we must realise that the absolute amount of debt must have increased at least by fifty per cent by the accumulation of interest only. That means that the total amount of indebtedness at the beginning of 1938 was thirteen and half hundred crores of rupees. Assuming that there was no serious fresh burden of debt during this period, which was quite likely owing to various credit restricting laws passed by many Provincial Governments, and also that some farmers, through the medium of arbitration boards, were able to reduce their debts, and others sold gold and silver ornaments to reduce their obligations, it can fairly and very conservatively be estimated that the total rural indebtedness of the country at the beginning of 1938 was twelve hundred crores of rupees.

Even in 1930 when the total rural indebtedness of the country was only nine hundred crores of rupees, and the agriculturists were realising " fair " prices for their products, it was considered by most competent authorities, that the burden was too much for the farmers, and all possible steps should be taken to relieve them from this crushing burden.

What is to be done now? The problem has become most formidable and requires immediate solution.

The Policy of " Wait and See."

At the prevailing price-level, many farmers find it altogether impossible to meet their obligations and are compelled to defer the payment of interest either in part or in whole. Creditors on the other hand are frightened to lend and consequently a large part of the credit structure of the country is frozen. There is still a school of thought in the country which unfortunately exercises a considerable influence and thinks that no positive action is needed. They believe in the policy of " wait and see."

They think that if we wait a little longer, things will right themselves. Either prices will rise, and in that event the burden of debts will ease to such an extent that the present problem will simply disappear, or things will get worse, and in that event, any action which might now be taken would have little influence in averting a general crash and that we need not therefore worry ourselves about the problem.

This rather fatalistic view is, however, untenable. In the earlier stages of the depression, it was reasonable to urge that only temporary relief was needed. But with the passing of so many years after the depression has officially terminated, it is hard to persuade the farmer that no permanent reconstruction is necessary. As a matter of fact signs of another slump are more than apparent in the prices of agricultural products. Wheat which is a basic agricultural commodity and is a pointing finger to the agricultural situation, its price has again fallen recently, after a considerable rise during the last two years.

What are we to do?

But before taking any definite steps we must fully realise repercussions of any policy that we choose to adopt. It is always necessary in considering the wisdom of a policy to take into account not only its immediate effects, but also its indirect repercussions in the future.

A drastic writing down of debts, for example, may appear immediately beneficial to debtors, but if it dries up the streams of lending in the future, this apparent benefit is illusory. But it is equally true that while a policy of temporary relief through moratoria, etc., may seem at the moment adequate for individual farmers, its direct consequences are less satisfactory. For one thing, it retards the essential process of distinguishing clearly between the good and the bad farmer, of getting the sub-marginal man out of farming and into something else. Efforts to keep these men going create an influence with a chronically depressing effect. And secondly, the very effort to hold up a final settlement may place a check upon the flow of capital into farming no less serious than would be caused by a drastic compulsory writing down of capital. It seems probable that at least an attempt at a final settlement of the problem cannot be long delayed, and even those who are not convinced that this is so would probably do better to work in order to ensure the best possible settlement, even if they think it is sure to be a bad third-best, instead of holding out for further indefinite delay, when they are certain to fail to carry their points.

The best approach to a solution of the problem will be along lines suggested by an analysis of the situation which should be aimed at as ideally the best to attain, after all the necessary adjustment had been made. Of course it is also unfortunately the case that practical limitations may make it impossible to attain the end thus outlined in anything like completeness. In the ideal situation we should have a sufficient number of farmers operating to produce a quantity of farm products which it is reasonable to hope could be sold at a profitable price. This number would almost certainly be less than the existing number but even if it were not, the individuals included in the total would not necessarily be the same as the individuals now engaged in farming, *i.e.*, it might be necessary in the course of adjustment to replace some of the existing farmers by more efficient men. Secondly, the capital liabilities and capital equipment of the farmers would be such that the hypothesis of profitable prices was consistent with the hypothesis of capacity to meet interest charges based on current rates. The attainment of this end would also probably mean some capital losses or, more accurately, the formal recognition of losses which have already occurred. It is a matter for argument whether in allocating these losses, the legal rights of secured creditors as against unsecured creditors should be conserved in full where it was estimated that the value of assets was still sufficient to cover all secured advances, or whether secured creditors should also stand some loss, though presumably less loss than unsecured creditors would have to face. A decision on this question will depend in part on the decision on the further question whether an organised effort was to be made by Government action or otherwise to provide cash for immediate repayment of capital liabilities or, what comes to the same thing, to offer bonds which could be immediately converted into cash. If debtors were forced into bankruptcy, secured creditors might find that their losses were still quite heavy, and it is therefore argued that their position would be easier if they accepted some sort of voluntary composition, which together with a scaling down of their claims would give them the opportunity of getting immediate repayment.

Repayment of Farmer's Debts by the Government: Example of Bhavnagar.

Sir William Barton writing in the *National Review* of January 1937, under the heading of "Communism and Rural Debt in India," has made a strong plea for wiping out the agricultural debts of the Indian ryot and has hailed the example of

Bhavnagar Durbar, which started a comprehensive scheme of redemption of agricultural debts in 1932, and the entire debt of the ryots which totalled, Rs. 86,38,874 was compromised for Rs. 20,59, 473 which sum was paid by the State to the creditors and is now being realised from the ryots in instalments with the land revenue dues. By 1935, Rs. 3,87,273 were realised by the State.

Can we do it in British India ?

What can be easily achieved in an autocratic state can hardly be realised in the democratic system of Government where a thing has to go through the mill. Even if it was possible to do it in British India, it is not a matter of practical politics. The Bhavnagar experiment is too small and the sum involved seems a petty figure when we compare it with the staggering figure of British India. Assuming for the sake of argument that it was possible to wipe out the entire indebtedness of the country with one stroke of the pen and we were to start with a clean slate would it be possible to save the farmer from falling into this pit again?

A pamphlet issued with the consent of the Revenue Commissioner, Bhavnagar State, throws interesting light on the working of this experiment. It is stated that on October 31, 1936, twenty-eight per cent of the total advances was recovered and there has been a marked improvement in the State land revenue recoveries which are both easier and greater than used to be the case in the past.

Simultaneously with the Debt Redemption Act, the Khedit's Protection Act was passed which gave protection to the borrowers by restricting their credit. How far it has been possible to save the Khedit from falling again into the clutches of moneylenders cannot be said with any accuracy as no definite enquiry has been made. However, it is clear from the above-mentioned pamphlet that stray cases of fresh borrowing at usurious rates of interest have been heard, but on the whole the credit of the farmer has been severely restricted and no fresh loans have been incurred to any considerable extent.

While it is extremely desirable to restrict unproductive credit, efforts must be made to provide a sufficient amount of credit to the Khedit in order to enable him to carry on the business of farming which, due to its very nature, must require credit as the Khedit gets money only at the time of harvesting his crops, while he has to incur all sorts of expenses throughout the year. It is very gratifying to note that the Durbar has been

alive to these needs. "Tagavi advances are granted by the State on a very large and liberal scale, either without charging any interest at all, or in case of advances of very large amounts loaned for costly agricultural improvements, charging very moderate rates of interest. Usually more than a lakh of rupees are advanced for seed tagavi alone during the sowing season annually for which no interest is charged."

It is very generous provision, but credit must be distinguished from charity which has a very demoralising influence. There seems no reason why the State should not charge a reasonable rate of interest on all productive loans. Moreover the credit provided by the State is merely a drop in the ocean, and every effort should be made to restore private money-lending under State control and regulation.

It is interesting to note that since the redemption of debts very few suits have been filed against the Khedits in the civil courts of the State, though in pre-redemption days, the suits against the Khedits contributed the greater part of the civil file. Similar decrease has also been noticed in the various British Provinces and the income from the sales of stamps, etc., has so seriously declined that it is causing great anxiety to the Provincial Finance Ministers whose sources of taxable income are very inelastic.

Restriction of Credit.

In this matter the Bhavnagar experiment is too short to give us any experience. The fact that during recent years the farmers have not fallen into debt offers us no relief as these are abnormal years. Owing to the tremendous fall in the prices of land and land products the equity of the farm and the farmer has become unsafe and there is a restriction of credit everywhere. Even farmers with good security are not able to borrow these days. What will happen when prosperity comes and prices begin to rise? Will the farmer be able to save himself? In order to answer this question we should examine the causes which are responsible for the farmer's debts. Unless steps are taken to remove these causes no permanent results can be achieved.

The first and the fundamental cause is the farmer himself. He borrows recklessly, as he does not know the real cost of credit and is too short-sighted to take a long view. This is due to his ignorance. Efforts must be made to save him from himself. There is too strong a temptation to borrow just by putting an impression of thumb. He is no match for the clever money-lender who has a somewhat elastic conscience. All the civilised

countries of the world have stringent regulations to control money-lending. Efforts must be made in India to pass comprehensive laws whereby it should be made compulsory for every moneylender to take a licence and a careful watch should be kept over the activities of such moneylenders.

Sources of Production.

The farmer's sources of production must be increased. This is most important. At present the average holding is too small for any man to employ his time gainfully. Village industries should be developed and waste land should be reclaimed. Last, but not least, the present system of collection of land revenue should be modified. The system of collecting the revenue just when the crops are harvested leads to early selling which creates a glut in the market and depresses prices.

Unless the farmer's economic position is improved and a stimulus is brought about from within by educating him and improving his environment, no results can be of lasting value. But it is quite clear that these measures cannot be carried out in a day. It will take time. But the farmer's position requires immediate attention and quick remedies.

It has been suggested that we should follow the example of Bhavnagar. It is obviously impossible for financial reasons to follow this example even if it were sound. Consequently attention must be devoted to less expensive remedies.

How to Help the Farmers ?

Now that we have admitted that it is essential to relieve the farmer, from his heavy burden of debt, and to scale down his present debts, an important question arises—how to achieve this end? We have already examined the method followed in Bhavnagar and have seen that on financial grounds alone, it is not possible for us to follow this rather expensive method.

Another way open to us is that of voluntary means of conciliation popularly known as conciliation of rural indebtedness. This means that farmer's debts should be scaled to reasonable levels through the mutual agreement of the debtors and creditors. This is the method which has been adopted by most provinces.[3] An element of compulsion has been introduced in the Bengal Act, as a last resort. Madras is the only province where debt adjustment is not voluntary but compulsory, and

[3] Detailed summary of the Debt Legislation in various Provinces has been given in my forthcoming book, *op. cit.*

where a comprehensive Act was passed to this effect in 1937. For the first time in India it was boldly recognised by a Provincial Government that in order to provide the badly needed relief to the farmer, and to achieve any tangible results, it was essential that the adjustment of debts be made compulsory.

It has been urged that compulsory reduction of debts against the wishes of the creditors, and in spite of written contracts, is against the spirit of law and violates the sanctity of contracts. Whatever else may have been the disadvantages of compulsory reduction of debts, the stale argument of sanctity of contracts is the least impressive especially in India where the other contracting party does not even know when the contract was made. In rural India, contracts are rather "cooked" than made. In the world of to-day, where several governments have repudiated their debts, a person will be more than simple, who will be deterred from taking any action simply because of the fear of violating the sanctity of contracts.

However it is very gratifying to note that what I said six years ago (that the element of compulsion must be introduced)[4] is now being practised at least in one province.

I may have had some hesitations about the soundness of my scheme when I first presented it six years ago, but after the lapse of so many years, and after having seen the tardy results that have been achieved by voluntary adjustment, I am more than convinced that what I said was absolutely sound. And I take the liberty of reproducing what I said six years ago.

Debt Adjustments.

Voluntary attempts at debt adjustments have failed in the past, and there is little possibility of their success in the near future. The present situation demands that the Provincial Governments should establish impartial tribunals in each province to effect compulsory debt adjustment. It is necessary that members of such tribunals should be those who belong to agricultural classes and derive a major portion of their income from land; or they should be officers of either co-operative or agricultural departments. Such members will be better able to understand the difficulties of the farmers, and would view the whole matter with much wider consideration than members of the Judicial Service, who are brought up in legal environment and look more to the legal than the practical side of the problem.

[4] See my book *The Farmer and His Debt*, London, 1934.

The Judicial Officers interpret the law in its strict sense, and do not go beyond the mere documentary evidence. The Royal Commission on Labour in India recommending the adoption of summary liquidation proceedings for the workers, remarked:—"The proceedings should be rapid and as free as possible from the intricacies and technicalities of ordinary civil court procedure."

Such a tribunal should consist of three members, one from either the co-operative or agricultural departments, one from the legal profession of land-owning stock, and the third should be a leading man of the locality. If the decision of the tribunal is unanimous, there should be no right of appeal. In order to save the farmers from the claims of mortgages or moneylenders a right should be given to ever needy farmer to apply to the nearest tribunal for protection. A protection certificate should be issued for a period of one year to prohibit either mortgages or moneylenders from recovering either interest or principal. The tribunal, before issuing such a certificate, should estimate the probable income and the liabilities of the farmer on a conservative basis, and if the tribunal be satisfied that, with that amount of income, with due regard to his requirements, it is not possible for him to pay the interest or principal, it should issue a protection certificate without delay.

If, however, the tribunal decides that it is possible to pay a part of the interest or principal, the mortgage debts should receive preferential claims over unsecured debts. Before the issue of a certificate an opportunity should be given to the lenders to place their views before the tribunal. After a temporary relief has been granted to a farmer to give him breathing time, his case should be carefully examined by the said tribunals and his debts must be scaled to a level, which he can easily pay.

Authority should also be given to the tribunals to investigate the claims of those farmers who apply for clearing certificates. The clearing certificate should be issued to those farmers who are heavily indebted and have no reasonable chance of meeting their obligations in the near future. The tribunal should go into the financial position of such farmers very carefully, and paying due regard to their requirements and the quality of the soil, should fix a minimum acreage of land for their holdings and other belongings necessary for them. The rest of their property should be sold out to pay off their debts, and they should be allowed to start with a clean slate. The money realised from the proceeds of the sale should be distributed to various creditors, the mortgagees having a preference. There should be a definite

policy to discourage unsecured debt, and the debtor should be given facilities to obtain his discharge as soon as possible.

The inadequacy of the present insolvency law for meeting rural requirements, for the first time emphasised by the Civil Justice Committee, makes the passing of a simple Rural Insolvency Law an inevitable necessity.

Moneylending.

There is need for adequate legislation to discourage private moneylending. Most of the difficulties of the farmers arise out of the ease with which they can borrow. The remarks made by the Royal Commission on Labour in India about the easy means of borrowing by the worker are even more true of the farmers. The Commission remarked: "The fatal weakness in the present system is the comparative ease with which the worker can borrow sums which he has little prospect of being able to repay. His lack of education tends to prevent him from taking long views, and the offer of cash to the extent of a hundred or two hundred rupees for the thumb-print is almost irresistible."

All private moneylending should be prohibited except under a regular licence from the District Magistrate, and one of the conditions of issuing a licence should be an obligation to keep regular accounts. No healthy agricultural community in India can exist unless the increasing number of moneylenders is drastically reduced, and the illiterate farmers are saved from the temptations and intrigues of clever moneylenders.

Rural Indebtedness.

The heavy rural indebtedness in India is due largely to the fact that moneylenders find it a profitable investment and are not only prepared but eager to lend money with all possible persuasions and temptations which the simple farmer cannot resist. It is necessary to protect him against his own foolishness. One of the chief reasons why co-operative societies in India have mostly failed to reduce rural indebtedness is that they cannot cater for uneconomic borrowing by the farmers, and the money-lender has got a free field to entrap the farmer and once a farmer falls into his clutches it is not easy to get out of them. No scheme of financing agriculture on economic lines can succeed unless unproductive borrowing (which is mostly due to our social customs) is checked.

The condition of the European peasantry was the same in the middle of the last century, when private moneylending was

so prevalent. Uneconomic debts were incurred very frequently but with the spread of co-operation and proper control of money-lending the situation has improved very considerably.

Once the channels of private moneylending are tightened and the flow of credit properly controlled, the result will be a healthier peasantry, more prosperous agriculture and a happier India.

DEBT LEGISLATION IN INDIA

BY

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Introductory.

Debt Legislation is not a new experiment. Measures for the relief of debtors had been adopted even in old Greece and Rome, but with what amount of success, it is difficult to say. When Solon came to power about 600 B.C. his first act was to help the debtors against the iniquitous laws which existed there uptill the time of Dracon. The laws relating to payment of debts were so severe that the creditor could claim the person of the insolvent debtor. Solon's first act was to annul all those debts and mortgages by which the debtors' person was pledged and make them free. He further enacted that debtors could not be enslaved for non-payment of debts in future, and to prevent the growth of dangerously large estates he fixed a measure of land which could be held by a single person. Similar measures were adopted in Rome. Thomas Arnold in his "History of Rome" refers to Licinian laws. These laws were passed in 387 and according to them whatever had been paid in interest uptill then had to be deducted from the principal and the balance was to be paid in three equal instalments. A study of these laws might have been of some help to a student of Indian economic problems and legislator if historical evidence were available to show to what extent these measures had actually been successful, but here the historian is more or less silent.

A brief survey of the legislative measures adopted in India from time to time goes to show that each separate piece of legislation deflected the activities of the creditor or the borrower in a new direction evading it and thus a fresh legislation became imperative and so the process has been going on *ad infinitum* and it is difficult to say where we are going to stop.

In India, as in other countries, moneylending has been one of the oldest professions and can be traced back to 2000 B.C., though some definite information about it is available since the 5th century B.C. In the *Dharmashastras* there are references about the rate of interest. The Sudras were charged at 60 per cent and concessions were made in favour of higher classes. The legal rate, therefore, was 60 per cent, and Manu enjoined that any stipulation above this rate was null and void and further prescribed that the amount of interest paid at one time should not exceed double the principal. During the Muhammadan rule state-loans were advanced to officials and members of the royal household. In the first year no interest was charged. It began from the second year and the rates went on increasing progressively with the period of the loan. Similarly there was the practice of advancing loans for agricultural purposes in times of drought or wide-spread calamity.

Historical Growth.

The system was continued by the British Government and in 1793 various regulations were issued for providing Takkavi loans to proprietors, farmers and tenants. These were followed by the Lands Improvements Loans Act of 1883 and the Agriculturists' Loans Act of 1884. The Act of 1883 was rather limited in scope, and money under this Act could only be advanced for the specific purpose of affecting improvements on the soil, *i.e.*, sinking a well or purchasing manure to enhance the productivity of the soil. But the purchase of cattle or agricultural implements would not come under "Land-improvement" and loans could not be advanced for this purpose according to the Act of 1883. The Act of 1884, therefore, rectified the shortcomings of the previous Act and was more comprehensive in character. These Acts, however, did not become very popular. They did confer, no doubt, a temporary benefit on the agriculturist particularly in times of acute depression, but did not go a long way to achieve the object with which they were adopted.

It might be instructive to note to what extent advantage has actually been taken of the provisions of 1883 and 1884 by the agriculturists. The following figures relate to five years from 1931-32 to 1935-36, and have been taken from the annual reports on the administration of land-revenue in the Punjab, and conditions will be found more or less the same in all the provinces.

Statement showing disbursements in the Punjab on account of Lands' Improvement Act of 1883 and Agriculturists' Loan Act of 1884

Year.		Amount advanced during the year. Under Lands' Improvement Act of 1883.	Under Agriculturists' Loan Act of 1884.
1931-32	...	3,50,439	3,00,895
1932-33	...	2,50,439	3,86,785
1933-34	...	2,15,687	9,76,713
1934-35	...	1,64,164	1,04,252
1935-36	...	1,46,395	2,28,332

These figures speak for themselves. The maximum amount advanced during five years from 1931—1936 on account of Lands' Improvement Act was a little over three lakhs and on account of Agriculturists' Loan Act a little above nine lakhs. In the Punjab, according to the recent estimates, the agriculturist pays annually an interest of Rs. 20 crores to the moneylender. To what extent the paltry advances made to him under the above Acts might have been utilized for the improvement of land or agriculture and to what extent they were swallowed up by the moneylender is again a doubtful question. The U.P. and Madras Governments have recently amended the Act of 1884 and extended its scope by including grants for the payment of existing debts and purchase of rights in agricultural land. These Acts did not become very popular and are not likely to be very popular. While the moneylender can sleep over his debt for a long time and then get hold of the entire land and property of the cultivator, the Government always insists on the regular recovery of the stipulated instalments. The borrower is apt to forget the benefits received and to regard the annual instalments as a grievance and unwisely considers the moneylender to be his only friend. Secondly, the resources of the Provincial Governments are not enough to enable them to set apart each year huge amounts of money to meet the problem successfully.

Land Alienation Acts.—These regulations were followed by restrictions on the alienation of land such as the Punjab Alienation Act of 1900, the Bundhel Khaund Alienation Act of 1903 and the Central Provinces Alienation Act of 1916, in which there are provisions prescribing that usufructuary mortgages of land, except to a member of the same agricultural tribe or a tribe in the same group as the mortgager, may remain in force for a

number of years after which the land may be re-delivered to the mortgager free of all encumbrances. According to the Punjab Land Alienation Act of 1900 a peasant could not sell his land to any one except to members of certain agricultural classes who were recognised as such by the state. Lord Curzon was very optimistic about the success of these measures when he said that the moneylender 'could no longer take his pound of flesh in land.'

These Acts aimed at curtailing the rights of the peasantry to raise money on the security of their soil and thus to check indebtedness. Lord Curzon could hardly imagine that these Acts would eventually lead to the emergence of a class called the "agricultural moneylender" or induce the non-agriculturists to get themselves declared as agriculturists by taking relief under Section 80 of the Civil Procedure Code.

A perusal of the reports on the "Administration of Land-Revenue" in the Punjab reveals certain interesting and amusing devices adopted by the moneylenders to evade the Punjab Land-Alienation Act.

The land continued to pass, in spite of the Act, from the agriculturists to the non-agriculturists under *benami* transactions which assumed various forms. "Sometimes a non-agriculturist creditor," says the report on land-revenue in the Punjab for 1931, "gets the land of his agricultural debtor mutated in favour of another agriculturist in his confidence and receives the rent or the produce of the land from his agricultural nominee. Another form of *benami* transaction is that a non-agriculturist gets the land of another agriculturist debtor mutated in favour of another agriculturist in his confidence and gets himself entered in the revenue papers as the latter's tenant-at-will but does not actually pay such rent." According to the official report for 1931 one hundred and fifty cases of *benami* transactions occurred in the district of Amritsar alone. Recently the Punjab Government appointed some special officers to unearth such *benami* transactions and according to the statement of the Premier in the Punjab Assembly a few months ago, they have discovered no less than 6,697 cases of such transactions, out of which 2,437 have been recommended for review.

Another method of evading the working of the Punjab Alienation Act has been an increased tendency on the part of the non-agriculturists to get themselves included in agricultural tribes. Notices under Section 80 of the Civil Procedure Code are served by them against the Secretary of State to get themselves declared as agriculturists. And many of them succeed in their object by

proving matrimonial alliances with members of the agricultural tribes. Some of the instances of the non-agricultural tribes who were notified as statutory agriculturists during the recent years are given below:—

1936—Brahmins of the Kulu tahsil (including Saraj but excluding Lahail and Spiti) of the Kangra District who were entered as occupancy tenants in the settlement of 1891 were notified as members of an agricultural tribe under the Alienation of Land Act.

1935—Kakkezias in the Amritsar, Gurdaspur and Sialkot districts, Mohiyal Brahmins in the Gujrat and Gurdaspur districts, Maliars in the Gujrat district and Harris in the Ludhiana district were declared as statutory agriculturists under the Alienation of Land Act.

1934—Mohtams in the Muzzafarpur district and Gaur Brahmins in the Amballa district were notified as statutory agriculturists.

1933—Gujars in the Jhang district and Qureshis in the Hissar, Rohtak, Ludhiana, Ferozepur, Amritsar and Gurdaspur districts were notified as statutory agriculturists under Alienation of Land Act.[1]

These are instances enough to show how an increased tendency had been going on from year to year on the part of the non-agriculturists to get themselves declared as agriculturists and defeat the objects of the Land Alienation Act. Another interesting example of the devices adopted to contravene the spirit of the Act comes from Gurdaspur where some wealthy non-agriculturists are reported to have married the daughters of poor and indigent members of an agricultural family to acquire land in the names of their wives.

The following table shows to what extent agriculturists in the Punjab have been losing the net area under cultivation by mortgage or by redemption to non-agriculturists. It has been prepared from the figures available from the official reports. The object of the legislation was to tie the hands of the agriculturists to raise money by restricting the security that they could offer to the moneylender in the form of land and thus to check indebtedness indirectly. The Punjab Government, however, did not maintain a regular record of statistics to watch the

1 Annual Reports issued by the Financial Commissioner, Punjab, on the administration of land-revenue.

actual operation of this Act. The conclusions tabulated below are based on the figures as far as they could be available and refer to six years from 1931 to 1936:

Year.		Net area lost by the agriculturists in acres.	Net area gained by purchase or redemption by the agriculturists in acres.
1931	...	31,295*	5,941
1932	...	61,415*	872
	...	25,621†	
1933	...	84,735*	3,233
	...	26,117*	
1934	...	85,144*	
	...	37,702†	
1935	...	97,376*	10,977
1936	...	94,825*	20,292
Total	...	544,230	41,315

The area gained by agriculturists is 41,315 acres as against 5,44,230 acres as lost giving a net loss of 492,915 acres. These figures can indicate to what extent the Act has been successful in achieving its object and checking indebtedness.

The Co-operative Movement.—The next remedy adopted was the co-operative movement. The movement owed its inception to the failure of the previous efforts made in this connection from time to time by the Government. It is useless to discuss here the various provisions of the Co-operative Acts of 1904 and 1912. What is necessary for the purpose of the subject under discussion is to see to what extent the movement has actually been successful in achieving the objects with which it was started. The movement was initiated with great hopes of attaining the greater realisation of a higher and more prosperous standard of life for the agriculturists which might be characterised as "better business, better farming and better living." The idea was borrowed from the experiments carried on in Germany by Raiffeison, who was employed as a burgomaster in one of the poorest districts in Prussia, in which the half-starved peasantry was in the grip of

* By mortgage.

† Redeemed by non-agriculturists.

the moneylender. In Germany the movement grew up from the soil and hence it had a phenomenal success but in India it was superimposed from above through a Governmental agency, and hence the hopes with which it was started were not fully realised. The success achieved so far has been rather slow and judged from the figures and statistics of the work done one feels constained to remark that it will take a few centuries before the movement can possibly be successful in wiping off the total amount of the agriculturists' debt, a higher and more prosperous standard of living being out of the question. After an experiment of a little over thirty years, the working capital per head of the population for India as a whole works out to be As. 0-44-0, *i.e.*, Rs. 2-12-0 against a total indebtedness of between 700 to 800 crores as estimated by the Central Banking Enquiry Committee. The indebtedness would work out to be a little above Rs. 20 *per capita*, against a working capital and not the actual debt redeemed of Rs. 2-12-0 per head. It would thus be obvious that the movement has touched only a fringe of the problem. Again the agricultural classes in India having no savings of their own, it is idle to expect the members of the Co-operative Societies in this country to bring sufficient capital to work the societies and the only alternative is to secure a flow of outside credit and capital through the Provincial and Central Banks. The figures and statistics also lead to the same conclusion. " In a country where the the financing of the Primary Societies has to be done with the help of capital drawn from outside sources, the movement cannot be called truly co-operative."

In spite of the co-operative movement the indebtedness went on increasing and the moneylender continued to be a necessary evil with his usurious rates of interest. The following cases of usurious loans collected by the Bengal Banking Enquiry Committee are alarming and show the extent of usury in that province:—

(1) Mortgage Suit No. 154 of 1928, in the Third Court of the Subordinate Judge of Midnapur; Upendra Nath Pahari *versus* Gadadhar Pahari; interest on a loan of Rs. 15 taken in May 1923, and secured by a mortgage of conditional sale at 0-1-0 anna per rupee per month (75 per cent per annum) compound with quarterly rests, amounted to Rs. 9,450-2-10.

(2) Mortgage Suit No. 8 of 1927 in the Second Court of the Munsiff of Chandpur, Adhar Chandra Shaha

versus Nasiruddin, loan of Rs. 22 taken on mortgage of agricultural land in June, 1915, on interest at 120 per cent per annum with yearly rests; total liability Rs. 26,070. The suit was decreed on compromise for Rs. 431 only.

The Usurious Loans Act of 1918.—To give relief to the debtors from the usurious rates of interest, the Usurious Loans Act was passed in 1918 by which discretionary power was given to the courts to interfere where the rate appeared to be excessive and the transaction substantially unfair. In actual practice, however, the Act remained a dead letter on the statute book due to the baffling decisions of the High Courts and the Privy Council. "The trend of rulings was to impress on Subordinate Courts that they had no power to interfere with contracts solemnly entered upon and the discretion of courts was fettered by judicial decisions which were tending in favour of creditors." (Bengal Banking Enquiry Committee.) Various rulings have been cited in support of the above contention, of these the most important are 32 C. W. N. 388 and 8 Lahore 205.

The Usurious Loans Act, therefore, did not give any material help to the debtors and had to be amended recently to suit the needs of the various provinces. The general trend of the amendments carried out in Madras, United Provinces, Central Provinces and the Punjab during the last three or four years is that the powers conferred on the courts by the above Act have been made "obligatory" instead of being "discretionary" and the term "excessive rate" of interest has been defined. For example, the Punjab Relief of Indebtedness Act, 1934, Part III, Section 5, relating to the amendment of the Usurious Loans Act of 1918, says:—"The Court shall deem interest to be excessive if on secured loans it exceeds twelve per centum per annum simple interest or nine per centum per annum compound interest with annual rests, and if on unsecured loans it exceeds eighteen and three quarter per centum per annum simple interest or fourteen per centum per annum compound interest with annual rests; provided that the court shall not deem in excess of the above rates to be excessive; if the loan has been advanced by the Imperial Bank of India, or any Banking Company registered under the Indian Companies Act of 1913, or any law relating to companies for the time being in force in British India."

Land-mortgage Banks.—The scheme for "Land-mortgage Banks' forms another chapter in the history of the measures adopted from time to time to cope with the problem of indebted-

ness. The idea of Land-mortgage Banks was to extend long-term credit to the agriculturists which could not be done through the ordinary Co-operative Societies. Proposals had been made from time to time that Land-mortgage Banks on the Egyptian Model should be started in India to solve the problem of agricultural indebtedness. The first bank of this type was started at Jhang in 1920. In Bengal the establishment of the Land-mortgage Banks was taken up after the report of the Bengal Banking Provincial Enquiry Committee, though there were two banks of this type already in existence, one at Naogaon in the district of Rajshahi started in 1924, and the other at Bhola in the district of Bakarganj started in 1929. The facilities existing for long-term credit had been inadequate and unsatisfactory and Land-mortgage Banks were considered to provide the necessary palliative. The Bengal Banking Enquiry Committee appears to use in this connection a halting sort of language and does not appear to be very optimistic about the success of such a scheme. The difficulties according to them are still more in Bengal where on account of the Permanent Settlement there is no village agency for maintaining an accurate record of lands and most of the settlement records have now become obsolete on account of deaths and transfers affecting small and fragmented holdings. It will, therefore, be a difficult task "to shoulder the responsibility for examining and valuing the security."

The capital of these banks is drawn by debentures of which the interest is guaranteed by the Government. Loans are advanced to members but not in excess of the 50 per cent of the market value of the lands assigned by mortgage-deeds to the bank. Loans are not granted for a period exceeding twenty years. Sometimes the primary societies are utilised as agencies for granting loans and receiving back instalments. A land-mortgage bank apparently appears to be a very good institution for financing long-term credit for the cultivator and ensuring a good investment for the creditor for a number of years. But the history of the land-mortgage banks in Egypt on which the Indian enthusiasts have based their schemes in the various provinces is not very encouraging and shows clearly the danger of facile and cheap credit to ignorant cultivators.

The great Agricultural Bank in Egypt was founded in 1902. It granted two classes of loans, 'A' and 'B.' The 'A' class loans were meant for small farmers without mortgage security. The maximum amount that could be advanced was £20 for a period not exceeding fifteen months. The 'B' class loans were made against a first mortgage to the extent of £300 each for not

more than $5\frac{1}{2}$ years and it was not to exceed 50 per cent of the value of the mortgaged land. The interest was limited to 9 per cent and recoveries were to be made together with the Government land tax in return for a commission of $\frac{1}{2}$ per cent paid by the bank. The interest on bonds was $3\frac{1}{2}$ per cent guaranteed by the Government and a part of the capital was advanced by the state as a temporary loan. There was a scramble for money and such was the demand that the bank had advanced ten million pounds in a few years. "By 1912, the bank had on its hands 1,185 acres of debtors' land, in 1914, 2,256 acres—these areas being in addition to the lands sold through the courts." The result was that the big landlords took the place of the money-lender and the bank instead of relieving indebtedness displaced the small cultivator in favour of the bigger landlord.

Recent Developments.

Since 1931 there has been a mushroom growth of legislation in all the provinces to relieve the heavy burden of rural indebtedness resulting from the world economic crisis of 1930. The Government of the Central Provinces was the first in British India to concert measures in this direction. In 1932 they drew up a scheme of "Debt-Conciliation" and legislative sanction was obtained for it early in 1933. Since then all the provinces have set up Debt-Conciliation Boards with slight modifications to suit the local conditions.

Debt-Conciliation Boards.—The object of these Boards is to scale down debts by persuading the creditor and debtor to come to an amicable settlement. Where persuasion fails the boards have to use their 'powers of certification.' The Board for each area is appointed by the Local Government. It consists of three members, the chairman being usually a retired judicial officer. In the case of C. P. the maximum number of members is nine and only debtors who do not own more than Rs. 25,000 can apply to the Board. In other provinces particularly in Bengal the limit regarding the amount owned by a debtor does not exist. A debtor can apply to the Board within his area for adjudication of his debts giving necessary particulars, *i.e.*, the history of each debt with particulars of the original principal and the rate of interest chargeable, and the name of each creditor. A creditor can also similarly apply giving all the particulars about his debtor and the creditors known to him. The Board gives the parties an opportunity to explain their case and then persuades them to come to an amicable settlement. The agreement thus

arrived at is accepted and has the effect of a court decree. If any creditor does not accept any offer made by the debtor which in the opinion of the Board is a fair offer and such as the creditor ought reasonably to accept, the Board can grant the debtor a certificate in the prescribed form in respect of the debt to which the offer relates and no Civil Court shall allow to the plaintiff in any suit for the recovery of such debt, any costs in such suit or any interest on the debt after the date of such certificate in excess of a particular rate of interest prescribed by the legislature of various provinces which is usually 6 per cent.

There is, however, one anomalous provision in these Acts which operates harshly to the interest of the creditors.

Section 20 of the Punjab Relief of Indebtedness Act 1935, and Section 19 of the Bengal Debtors' Act 1935, lay down a condition which must be satisfied for granting a certificate to the debtor in respect of his total debts:—

" When creditors to whom there is owning not less than 40 per cent of the total debt agree to an amicable settlement with the debtor, the Board if it is so empowered and if it considers that an offer made by the debtor for the settlement of any debt not included in the amicable settlement is a fair offer which the creditor concerned ought reasonably to accept, may pass an order that the debt to which the offer relates may be settled in accordance with such offer." The Madras Debt-Conciliation Act of 1936 has also got a similar provision where if the creditors to whom not more than 50 per cent of the total debt is owning come to an amicable settlement, such settlement is reduced to writing and takes the form of a decree, exception being made in the case of a secured creditor who does not agree to such a settlement.

The actual effect of these provisions has been that the debtors include fictitious creditors in their list so that this limit of 40 per cent may be reached and they may be able to arrive at a bargain favourable to them. The genuine creditors have to suffer because their payment is spread over a long period and the fictitious creditors in the list who are in the confidence of the debtors do not in fact receive any payment but only give bogus receipts. This provision in the Bengal, Punjab and Madras Acts is really uncalled-for and operates harshly against the creditors. There is no such provision even in the Central Provinces Debt-Conciliation Act on which the subsequent legislation in the various provinces is based. This condition only introduces unnecessary complications, is inimical to the interests

of creditors and does not in any way promote the genuine interests of the debtors as long as the Board has got the power of certification with regard to individual creditors and should better be repealed.

Legislation to control rates of interest.—Legislation to control rates of interest is a new development in India. In the Western countries this had been done much earlier. Usury laws existed in England before 1854. The introduction of machinery during the middle of the 19th century led to large-scale production with the consequent development of trade and business. The financial accommodation required by the businessmen could not be obtained at the rates then existing and then the wave of Benthamite doctrine of freedom of contract led to the repeal of the Usury Laws. This led again to the recrudescence of usury in a more or less virulent form and legislation had to be adopted for the protection of the borrowers against unconscionable bargains. In 1900 the Moneylenders' Act was passed in England providing for the compulsory registration of all moneylenders and power was given to the Courts to re-open the transaction and to give relief to the borrowers by reducing the rate of interest, if it appeared to be excessive.

In India a half-hearted attempt was made in 1899 in respect of usurious loans by a slight amendment of the Indian Contract Act, by which equitable jurisdiction was conferred on the Courts only in cases relating to usurious contracts, where the element of undue influence was established. But the Courts have no power to grant relief where the element of "undue influence" was absent, even though the rate of interest was excessive. The provision, however, did not operate to the benefit of the borrowers. The next measure was the Usurious Loans Act of 1918, which as already discussed had been a dead letter on the statute book.

To determine the judicious rates of interest and fix them by legislation is rather a difficult task. The difficulty is all the more in the case of unsecured loans. The gross element in the rate of interest necessarily increases when the security is doubtful and is highest when it is wanting. Small loans entail more trouble and expense in collection and this must be another charge. The rate of interest, therefore, must fluctuate with the nature of each transaction, *i.e.*, the extent of the security offered and the trouble and expense entailed in collection. The Bengal Provincial Banking Committee collected the rates of interest prevalent in the various districts and the following table referring only to seven districts gives an idea of the variety of rates and their wide range of fluctuation:

District.		Moneylenders' usurious rates prevalent in the districts per cent per annum.
Burdwan	...	24 to 175
Midnapur	...	12 to 75
Hoogly	...	12 to $37\frac{1}{2}$
Murshidabad	...	18 to 120
Dacca	...	12 to 129
Mymensingh	...	24 to 225
Chittagong	...	15 to 75

The same committee has concluded that for the province of Bengal as a whole about 80 per cent of the number of loans advanced by the moneylenders is unsecured, but the proportion that the value of the secured loans bears to that of the unsecured loans would be nine to ten.

The Government of Bengal have sought to meet these evils by fixing the maximum rate of interest at 15 per cent per annum in the case of secured loans and 25 per cent in the case of unsecured loans in case of all debts as provided in Section 3 of the Bengal Moneylenders' Act of 1933. The maximum rate of interest allowed in case of any loans made after the commencement of this Act is 10 per cent per annum under a contract which provides for payment of compound interest and no court can decree on account of arrears of interest a sum greater than the principal of the loan. In Madras according to the Agriculturists' Relief Act of 1938, power has been given to the Courts to scale down interest due on any debt after the commencement of that Act so as not to exceed a sum calculated at $6\frac{1}{4}$ per cent per annum simple interest, *i.e.*, one pie per rupee per mensem. No provision seems to have been made separately for secured and unsecured loans. In C.P. the compound interest for debts amounting to Rs. 5000 or less has been fixed at $7\frac{1}{2}$ per cent with *half-yearly* rests and for amounts over 5000 at 6 per cent. The simple interest for such loans secured and unsecured is 10 and 15 per cent respectively in case of debts not exceeding Rs. 5,000 and for amounts exceeding Rs. 5,000 it is 9 and 13 per cent.

The U.P. Government have adopted a procedure which is worthy of careful consideration and adoption by other provinces. They have adopted a working hypothesis by which to determine the rates of interest from time to time in consonance with the conditions of the money-market, while in the case of other provinces such rates have been fixed on an arbitrary basis which

is rigid. According to the U.P. Agriculturists' Relief Act of 1934, the prevailing rates of interest both on secured and unsecured loan will be determined from time to time according to the rate of interest at which the Government of India will lend money to the local Governments. "As soon as possible after the rate of interest at which the Government of India will lend money to the local Government is announced from time to time, the local Government shall notify in the gazette, and shall publish in such other manner, as it thinks proper, the rates which shall be the prevailing rates of interest on secured and unsecured loans of the various classes contracted during the period that such prevailing rates remain in force. Such "prevailing rates" shall remain in force from such date as may be notified by the local Government and shall remain in force until superseded by new rates." [Section 28 (2). The U.P. Agriculturists' Relief Act, 1934.] How to determine these rates will be evident from the schedule given below:—

	Secured Loans.		Unsecured Loans.	
	Compound interest per annum with yearly rests.	Simple interest per cent per annum.	Compound interest per annum with yearly rests.	Simple interest per cent per annum.
(a) Rs. 500 and under	$\times + 2\frac{1}{2}$	$\times + 5$	$\times + 5\frac{1}{2}$	$\times + 9\frac{1}{2}$
(b) Rs. 500 to 5,000	$\times + 2$	$\times + 4$	$\times + 4\frac{1}{2}$	$\times + 7\frac{1}{2}$
(c) Rs. 5001 to 20,000	$\times + 1\frac{1}{2}$	$\times + 4$	$\times + 3\frac{1}{2}$	$\times + 6$
(d) Over Rs. 20,000	$\times + 1$	$\times + 2$	$\times + 2\frac{1}{2}$	$\times + 4\frac{1}{2}$

It will appear that there is a reasonable element of elasticity in the determination of rates as shown above and some correspondence between the pure and gross rate of interest which is absent in the case of legislation of this type adopted in other provinces.

The effect of legislation to control rates of interest.—The effect of this legislation has been that the moneylenders in case of needy borrowers where security is doubtful or wanting deduct 25 or 30 per cent of the amount from the principal in advance and ask the borrower to give a pronote for the full value of the amount asked for. If the borrower has asked for a loan of Rs. 100 then he will be required to give a pro-note for the full

$\times$ Represents the rate at which the Government of India will lend money to the Provincial Government.

value of the amount, will actuely be paid Rs. 75 or Rs. 60, the interest will be calculated at the full nominal value of the pro-note according to the rates sanctioned by the legislature. If he agrees to these conditions, the loan will be advanced, otherwise it will be refused.

Moneylenders' Registration and Accounts Acts.—By the various legislative enactments adopted recently provision has been made for the compulsory registration of moneylenders and maintenance of accounts in a form sanctioned by the legislature of each province. The penalties proposed for non-compliance with these provisions are rather meagre and more or less nullify the effect of the legislation. The Punjab Regulation of Accounts Act, 1934, lays down that if the court finds that the provisions of the Act have not been complied with by the creditor, the court shall, if the plaintiff's claim is established, disallow the whole or a portion of the interest found due, as may seem reasonable to the court in the circumstances of the case and shall disallow costs. According to the Bengal Moneylenders' Act of 1933, if a moneylender fails to supply an account without reasonable excuse within one month from the date of such requisition by the debtor, interest shall not be chargeable in respect of the loan concerning which the demand was made for so long as the default continued. The Madras Debtors' Protection Act of 1934 has also got similar provisions by which the court shall disallow costs if the accounts are not maintained in the proper order and the creditor shall further lose his interest for the period of default for which he has not furnished accounts to the debtor in spite of a requisition by him.

These are all half-hearted attempts to remedy the evils of fraudulent transactions. The C.P. Moneylenders' Act of 1934 goes a step further by which the penalty imposed for non-registration, etc., is a fine which may extend to fifty rupees or, if the creditor has previously been convicted of an offence under that Section, with fine which may extend to one hundred rupees.

The penalties imposed for non-compliance with the provisions of the Moneylenders' Registration and Accounts Acts are so light that they can hardly be deterrent in respect of avoiding the evils of fraudulent transactions. According to the English Act the creditor cannot even go to the court if he has failed to comply with provisions of a similar nature. But in India where a half-starved peasantry is in the grip of the moneylender and the transactions are often fraudulent, the only penalty imposed is 'disallowance of costs.' The first issue, I think, to be framed by the courts in such cases should be whether or not the

accounts have been kept in conformity with the rules framed by the legislature and if the issue is decided against the creditor, the case should be dismissed *prima faci.*

A survey of the legislative measures discussed above leads one to conclude that while each measure has conferred some temporary benefit on the agriculturist and given him some relief, it has in the long run given rise to disguised or *benami* transactions, over valued pronotes negotiated in favour of moneylenders to cover the risk premium and avoid the operation of Usurious Loans Acts, to fictitious creditors to get the benefit of the Insolvency and Debt-Conciliation Acts and lastly possibly to a considerable extent contraction of credit on the part of moneylenders on account of a sense of fear that their debts might be scaled down or written off any day by the legislature. One feels constrained to remark in the words of Bentham that centuries of experience from every country on the face of the globe have demonstrated the uselessness of restrictions upon the rate of interest. " No legislation which the wit of man can devise will ever prevent evasions of statutory restrictions. Nay more, such restrictions only render still more onerous the terms exacted by usurers."

Concluding Observations.

What then is the remedy? That usury is an evil, nobody will deny. That it should be stopped by all possible means should be the ideal of every good citizen. But to determine the point where interest ceases and usury begins is rather difficult. Pure rate of interest hardly exists anywhere except in the case of Government bonds which is just the rate necessary to attract savings for the ultra-conservative investment, where risk is negligible and the bother and detail of looking after the investment are small. The usual market rate is the gross rate, where the chief element is the insurance premium to cover the hazard of loss. It is possible to determine the measure of this insurance premium in the case of secured loans, but in the case of unsecured loans it is definitely impossible to determine it and taking good and bad loans of a moneylender together on balance he might not be getting more than a fair gross rate of interest if it is spread over all his investments. But there are cases on record to show where there is a definite amount of exploitation and unconscionable bargain. Moneylenders often get into touch with sons of big Zemindars and Government officials, advance them money on high rates of interest and indirectly help them to get

into bad ways of life. The pro-notes are renewed after three years during the life-time of the father and the accumulated interest is compounded each time. After the death of the father a civil suit is instituted, decree is obtained and a considerable portion of the property is taken away by the moneylender leaving the family absolutely destitute. It is difficult to advance a clear-cut definition of usury from a strictly scientific standpoint, but if the element of 'exploitation and unconscionable bargain' is established in a case, the courts should be empowered to treat it as a criminal offence punishable with imprisonment. The Bengal Banking Enquiry Committee recommended that 'usury' should be made a criminal offence, but one looks in vain in the report for their definition of usury. Again, the various legislative enactments do not prove to be the final remedy for controlling total indebtedness. There is also some sort of disguised indebtedness which cannot be covered by any sort of legislation. Sometimes the wives of moneylenders get into touch with respectable middle-class *purdanashin* ladies who in order to avoid publicity pawn their ornaments through them at high rates of interest. Such transactions always remain underground and can hardly be covered by legislation. Another set of moneylenders are the 'Kabulis' who enforce their contracts only by physical force or threat, and legislation hardly reaches them.

The remedy possibly lies in approaching the problem from the standpoint of production and teaching the people the art of 'better living,' besides the legislative enactments discussed above. The chief causes of indebtedness might be broadly classified under three main categories, the repayment of old debts, the financial needs of the agriculturist for the improvement of land, stock, etc., and his social and ceremonial obligations. Each of these categories needs a special treatment.

The payment of old debts can be regulated by a process of scaling down such as has been provided for in the Madras Agriculturists' Relief Act of 1938, which is a bold measure and by which all interest outstanding on the 1st October, 1937, in favour of any creditor of an agriculturist whether by law, custom or contract or under a court decree shall be deemed to be discharged and only the principal or such portion thereof as may be outstanding shall be deemed to be the amount repayable thereof by the agriculturist on that date and secondly where an agriculturist has paid to any creditor twice the amount of the principal whether by way of principal or interest or both, such debt including the principal shall be deemed to be wholly discharged. After this scaling down of old debts the next step

should be to see that the cultivator, as far as possible, does not get into further indebtedness and, even if he does, such debts should be regulated by a statutory rate of interest which should be fluctuating according to the rate at which the Government of India advances loans to the Provincial Government as provided for in the U.P. Agriculturists' Relief Act of 1934, which may be adopted with advantage by all the provinces with slight modifications to suit local conditions.

How to prevent the agriculturist, as far as possible, from running into further indebtedness next deserves our consideration. The genuine needs of an agriculturist are of a varied character. He needs financial help for the improvement of land, stock, etc., and purchase of implements and it might further include the finance required by him for the marketing of his agricultural produce. But an agriculturist on account of the inherent risks involved in his industry, *i.e.*, capricious rainfalls, unfavourable weather, diseases and pests, the difficulty of changing one kind of crop for another on account of the peculiarities of soil, its small size, individualistic and scattered character due to subdivision and fragmentation of holdings—risks from which the manufacturing industry is immune, cannot have recourse to the organised money-market. The ordinary commercial banks which invest their funds in business with a quick turnover cannot act as credit agencies for it. What is needed, therefore, is a co-ordinated effort to reduce as far as possible, if not eliminate, the risks involved in agricultural industry, to stop its individualistic and scattered character and to ensure a regular flow of credit which might only go to improve the character of agriculture and not be swallowed up by previous debts and high rates of interest. This can be possible through 'Co-operative farming.' These co-operative farming societies will be better able to regulate the output according to the conditions of demand—thus leading to a more or less stable price-level of agricultural products, other things remaining the same, introduce better rotation of crops, get over risks by building up reserve-funds to be drawn upon in times of drought, and act as agencies for marketing agricultural products. If properly organised these marketing societies can establish a useful link with the commercial banks.

The scheme suggested above would not entail any changes in the Tenancy Laws. A village can be broken up into big plots of land and the co-operative societies can purchase the right of cultivation on long term lease. The cultivation can be carried on along scientific lines in collaboration with the agricultural department and the ordinary cultivators can be employed as

agricultural labourers on wages to be paid partly in cash on a monthly basis and partly in kind at the time of the harvest. This system of payment will reduce the interval between the successive receipts of the return of labour of the agriculturist, which, when it is very long and the habit of saving is not strong, becomes an incidental cause of borrowing. These societies can further take up the work of providing housing accommodation for the peasants.

A scheme like the one suggested above, if successfully carried out, will enable most cultivators to dispense with the necessity of borrowing for agricultural needs.

Another important cause of borrowing is the expenditure on social ceremonies. Even a poor man must spend a handsome amount of money on the marriage of his son or daughter in order to come up to a particular standard of respectability whether he can afford it or not and must invariably run to the *bania* to give him shelter from the tyranny of Custom. The result is a legacy of debts accumulating at high rates of interest from generation to generation. It is more a problem of mob psychology than a problem of economics, and the remedy lies in removing that sense of inferiority complex from which the average man suffers on such occasions. In the Punjab they have tackled the problem by "Better-Living Co-operative Societies" to stop this wasteful expenditure. The objects of these societies according to the official report are to reform bad customs prevalent amongst the members, to prevent the waste of money on social ceremonies and to inculcate habtis of thrift. The members joining these societies enter into a pledge not to spend more than a specified amount of money on a marriage or death ceremony. To give a few instances of this new attitude towards expenditure, a big landlord spent to celebrate the marriage of his son, only Rs. 11 as against Rs. 10,000 spent on the marriage of his brother before he joined the society. The members of 14 societies in Jullundher are reported to have spent only Rs. 14,000 against Rs. 40,000 which they would have spent normally. In Montgomery district seven societies saved Rs. 16,000 on 32 marriages. The number of these societies is on the increase in the Punjab. In 1927 it was 136 with a membership of 5,350 and in 1935 it was 590 with a membership of 20,909. These are very healhty signs of approaching the problem from a constructive angle of vision. It is much better to put one's own house in order and avoid the expenditure on wasteful ceremonies instead of running into debt and then to take shelter under the Acts of the legislature.

The conclusion of this paper is obvious. The problem of indebtedness has got to be approached from many angles of vision. Debt legislation as a single remedy cannot cure the evil. Under the present conditions of production and distribution in this country, the moneylender is a necsesary evil, and his calling cannot be abolished by simply making it illegal. If he is ever driven from the land, it will not be by legislation but by a growth of feeling and concerted action towards 'better living' habits of thrift and a better system of production and distribution.

DEBT LEGISLATION HISTORY AND RECENT DEVELOPMENTS

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Agriculture being the most important and ancient Indian industry the question of its efficiency and prosperity should be considered as one of overwhelming national importance requiring the serious care and attention of both the Government and the public. With a peasantry endowed with the gifts of ordinary industry and intelligence an inefficient and deteriorating agriculture together with the heavy load of debt came on the scene dullening the peasant's outlook and cruelly crushing him. The most striking characteristic of the Indian economic life is the great preponderance of agriculture over other occupations, the great mass of human life and effort represented by three out of every four persons being devoted to agriculture. The variety of crops and domesticated animals which are selected from among the native stock of a particular locality and the many uses to which these may be put by man's growing intelligence and experience govern the arts of production and the civilization of the communities concerned. No evidence appears that the limit of agricultural development has been reached in India so as to interfere with the further increase of population and density. India is a ruralised country having about 8 lakhs of villages and will remain so as long as agriculture forms the main occupation of the masses. The social solidarity discouraged disparity of standards of living among different classes and the standard of living has been simple and not too high for any class. In India the great problem in agriculture is to reconcile certain non-economic values of social importance with the economic laws and our aim should be to make agriculture a purely economic business. In spite of our mythical wealth we read about in story-books or in records of western travellers ours is a poor country where people have a low *per capita* income, low standard of living, and are immersed in deep-rooted tradition making them content with things as they are. Again, the produce from land per head of the population is low and there

has been no substantial increase in the total area of cultivated land from the end of the last century. It is estimated that roughly an acre falls per head of the agricultural population and that every cultivating family has barely $4\frac{1}{2}$ acres. In the last century, famines occurred rather frequently but the effects of these were different from those of the present-day famines owing to the advance in the means of transport and communications, the extension of productive and protective irrigation facilities and the progress in scientific agriculture. Nature exercises a powerful influence on the fortunes of the agriculturist in India and he is in a large measure exposed to the vicissitudes of seasons. Of the total cultivated area in the country about 16 per cent only has irrigation facilities. The frequency of failure of crops owing to drought, floods and pests, the low vitality and high mortality of the livestock render the economic position of the cultivator worse still. This fact makes it abundantly clear that the development of animal husbandry work is essential. The Indian agriculturist is also illiterate and according to the last census only 6 per cent of men and women are recorded as being able to write or read a letter. About half a dozen years ago an investigation was carried out into the economic condition of the agriculturists in certain districts of the Madras Presidency and the conclusions deduced not only apply to other districts of that province but also to other parts of India. They are:—1. While population is increasing extension of cultivation is not keeping pace with it. 2. There is no improvement in the condition of unemployment of agricultural labour. 3. Fragmentation of holdings has increased. 4. Land is changing hands and the ryots are unable to repay their debts except by the sale of their lands and properties. 5. The margins available for maintenance of the cultivator's family after paying assessments are either inadequate or nil. 6. The value of the agricultural produce is insufficient so that, while few people are getting richer, a small number remains on the margin of subsistence and the majority are losing their hold on land. 7. Limited opportunities for initiative, enterprise and fuller life. 8. The social habits and customs entailing the farmers in wasteful expenses.

The present awakening in India may be regarded as a phase of world-wide interest in land evinced particularly since the great war as nations all over are trying to become self-sufficient. The activities for rural credit, co-operation, etc., religious zeal and political propaganda have all intermingled resulting in an awakening of the countryside and in begetting the danger of agrarian revolt in its various aspects. Political unrest is certainly

unhealthy and to it must not be added social discontent. The problem, therefore, can be met with largely by evolving out a socialistic policy for agriculture promoting common interests and justice in the distribution of material and moral resources at a time when new motives and values are gaining ground.

It is well known that in periods of prosperity all ranks of agriculturists enjoy and that improvidence soon leads to waste of money on unproductive and uneconomic causes. When there is fall in the price of agricultural produce, they realise that they are unable to meet the expenditure suited to the standard of living to which they were accustomed in good years. During recent years, it has been found that while the prices of articles of consumption have remained stationary land revenue, water and local rates, enhanced assessments and other cesses require to be met with, and that the ryots are, therefore, compelled to resort to moneylenders for loans. The gravity of the situation is fully understood by both official and public elements in close and constant touch with this class. Another disheartening feature is that the indebted peasants generally sell movable property as cattle and jewellery and mortgage houses or lands to pay Government dues, decree-debts, etc., in order to escape the dishonour of civil imprisonment. In our country, unfortunately, the rural moneylender happens to be the middleman, the trader and the retail shopkeeper rolled into one and into his dishonest clutches debtors fall in various ways. It is proved that by the use of false measures, weights and scales the unscrupulous merchants deceive the innocent and needy agriculturists. It is also very curious to know that in certain instances the *sahukar* even gets free gifts and service from these obliging indebted folk. In Bihar, Orissa and Madras a curious system is in vogue by which borrowers of small amounts of money are required to serve the lenders, and this practice is unhealthy in any economic life. As there is little chance to pay their obligations from their meagre annual earnings, the agriculturists have to pay them only out of capital assets like lands and houses. Even the decree-holders coerce the judgment-debtors into voluntarily parting with their immovable property and attach them. The consequent eviction of the agriculturist's family from the ancestral home and land and the imprisonment of the bread-winner are real calamities. It is not usually recognised that this vicious process tells even upon the moneylending and trading business.

In India, democracy rests on the village community and no wonder that in schemes of political reform now being adumbrated the revival of village organisations is made the

bedrock on which the true democratic edifice is sought to be raised. The village community in India was homogeneous in character and it prevented the accumulation of debt and the alienation of property. But with the establishment of British administration, the ancient laws and customs have become out of date. It is to be mentioned here that the 19th century favoured in a way the growth of debt. The land settlements gave fixity of tenure to the lease-holding classes. Along with it, judicial administration brought in its wake harmful economic and moral results by helping creditors to recover their debts through the attachment of cattle, and by arresting and imprisoning the unfortunate debtors. During some years owing to a rise in prices, speculative dealings were indulged in necessitating further borrowings. In troubled times moneylenders used to depend on the goodwill of the people, but now they count upon the help of the courts for their aggrandisement and execute their decrees through sales of land and ejectment of the debtors. The civil law is technical and does not protect the ignorant and the poor. The executive officers who are in touch with the rural life and who may be inclined to lend a helping hand to the debt-encumbered ryots have no discretion. At the same time, the moneylender does not sympathise with the peasant and wish for his prosperity. Courts, in spite of this, prove to be the instruments and handmaids of usurious *baniyas*. To aggravate the situation the Revenue officials collect rigorously taxes, cesses and the like. Therefore, there is political, moral and economic justification for the enactment of Debt Relief Acts.

In the major provinces of India the proportion of unproductive borrowings comes to about 65 per cent and most of these are contracted for improvident purposes like social ceremonials, etc. The insufficiency of income accruing to the small holders of land is attributed to bad methods of production, marketing, occasional failure of crops and the like. The moneylender hastens at the harvest time to the ryot and obliges him by advancing further amounts. In the Madras Presidency and parts of Bombay Province the village moneylender or petty dealer charges about 20 per cent interest on unsecured loans, while in Bihar and Assam the rates range from 25 to 50 per cent and in the United Provinces from 18 to 35 per cent. It appears that tenants and labourers who are not in a position to offer any security have to pay even 150 to 300 per cent which is heart-rending. The rate of interest on grain loans is nowhere less than 25 per cent. The total amount of debt in the Madras Presidency alone is estimated by experts and Government

committees to come to the tune of Rs. 200 crores. So the Indian farmers inherit debt, struggle through debt and bequeath debt. Debt brings in its train many evils. Agricultural inefficiency offering no incentive to extract the best from land is a serious result. Besides, it implies loss of property, change from hand to hand of land which generally falls as a prey to the non-cultivating landowners. Agriculturists who are thus deprived of their ancestral possessions become discontented and prove a social menace. People who supplement their agricultural incomes by engaging themselves in weaving and other village occupations also come into the clutches of moneylenders. This means that the agricultural economy is adversely affected. Chronic indebtedness leads to economic deterioration of the producers, low production, less consumption, impoverishment of the soil and increased indebtedness. Trade, industry and commerce which are dependent upon this main occupation of the people will naturally be depressed. So the problem that confronts all right-thinking men is not only to relieve the agriculturist from his debt burden but also to fortify him against future debt. Moratorium is a temporary remedy which only helps postponement of debt. No single remedial measure offers a solution of the problem. The problem of rural indebtedness is vital and is being tackled in all schemes of economic reconstruction, and it is fundamental in economic life. By legislation attempts were made in ancient and modern times, both in the east and west to relieve the grinding burden of debt of the agriculturists. I indicated the causes for indebtedness in our country and the methods employed by moneylenders to aggravate the situation. From immemorial times usury is considered to be exploitation of the poor by the rich and the ignorant by the intelligent. Mussolini stamped out usury by banishing the usurious lenders to far-off islands.

The causes responsible for increasing the debt of the agricultural population always exist in greater or less intensity in all countries of the world, but the great slump which commenced in 1929 disturbed the economic equilibrium of all countries and led to unjust redistribution of wealth. Even the advanced and prosperous nations like those of England, France, Belgium, Italy and Germany were unable to pay their debts and fulfil their contracts. The problem of rural indebtedness has been solved partly in these countries through legislation. For the purpose of our study we may classify these States into three groups: (1) States which adopted radical measures by which direct help to farmers is given and their burden of debt is lightened. These countries have reduced the rate of interest and the amount of capital

and introduced the system of compulsory conversion. (2) States which have given relief to debtors without seriously affecting the interests of creditors by providing for repayment of loans by instalments spread over some years, by suspension of destraint measures against debtors, by arranging between debtors and creditors for amicable settlement, by fixing minimum prices for sales of expropriated properties and by undertaking to pay part of the debts from their treasuries. (3) Nations with highly organised economic structure prompted by considerations of agricultural improvement, show respect for obligations and refrain from too much interference.

Some of the steps taken by such countries are worth noting. *Germany* introduced the following reforms in 1931-32:— 1. Loans were floated to help distressed farmers. 2. Their debts were replaced by special loans granted by the Central Bank. 3. Industries were required to pay a levy. 4. The crops were saved to the farmers by stopping destraint. 5. Voluntary efforts for settlement between creditors and agriculturists without recourse to judicial proceedings were tried. In 1933 systematic attempts were made for helping the agriculturists in settling their debts by reducing interest to a rate of 4½ per cent, by raising price-levels of agricultural products, etc. In the next two years for facilitating payment of debts of the agricultural and non-agricultural classes various decree laws and moratoriums were passed. *France* also adopted measures for the postponement of the repayment of debts. Attempt to adjust agricultural economy was seriously undertaken in *Italy* and in that connection prominence was given to the question of repayment of agricultural debts spread over long periods of 25 years. *Switzerland* has in recent times embarked on comprehensive legislation through the development of Business Aid Banks, reduction of rate of interest to 4½ per cent, extinction of interest in cases where debtors have paid 75 to 90 per cent of the amount borrowed. One noteworthy feature in this country is that all sections of the community co-operate and collaborate in the settlement or adjustment proceedings. In *Denmark* loans are granted by the State and freedom from payments is given up to the year 1942 and afterwards payment is to be made by instalments. The Government have also postponed forced sales of agricultural properties. The Agricultural Credit Bank of *Norway* grants loans for compulsory or voluntary liquidation of debts. The Government of *Finland* has gone a step further in converting short-term debts into long-term debts. By the law of 1934 the State Bank was authorised to buy the farms sold by

auction by forced sales. The purchase price was in the form of bonds guaranteed by the State and given to creditors at a fixed rate of interest. The farms bought could be re-transferred against a mortgage guarantee to the previous owner or his family, provided they undertook to make them their chief means of livelihood. In other cases the State utilised such lands for colonisation purposes. In *Japan* the system of adjustment of indebtedness through associations working in a spirit of comradery and neighbourliness prevails. *Canada* by the Act of 1934 has appointed Official Receivers in each district whose business it is to help the burdened debtors or farmers in drawing proposals for reduction of their debt or for extension of the periods of repayment and to submit them to the creditors. In case of the acceptance of such proposals the Provincial Commission of Revision concludes the arrangement. In the *United States*, a form of Credit Administration was established to bring about a complete system of unified permanent credit institutions in order to give to farmers credit in keeping with business practice and to meet credit crises by adjusting the burdensome mortgage debt and to reduce the rates of interest to $4\frac{1}{2}$ per cent for a period of 5 years commencing from 1st July, 1933. Debt Adjusting Courts are also constituted for bringing about voluntary arrangement between creditors and debtors in the matter of settlement of their debts. In countries of *Central and Eastern Europe* similar measures have been adopted as also for improving the yield of land, the quality of the produce and for regulating foreign commerce. The conditions necessitating and the objects for which relief measures were adopted by the foreign countries were different from those of our country. In Europe after the War industry and agriculture underwent complete reconstruction on a capitalised system in a way which meant interaction of the various elements on the general economic life.

A study of the foregoing measures stands us in good stead in tackling the problem of indebtedness and agricultural improvement in our country. In the introductory part I have attempted to bring out the importance of agriculture, to fix the position of the agriculturist in our national economy and to show how urgent is the necessity for concerting measures not only to help him to live in comfort but also to relieve him of his great burden of debt. So it is but natural that in all our agrarian programmes the question of indebtedness is given a prominent place. Wisdom, foresight and necessity have compelled the various Provincial Governments of India to pass Acts to save the agriculturist from this calamity. It is also curious to note that practically, at the

same time, attempts to seriously tackle the problem of indebtedness are being made all over India and we find certain parallelisms in the recent legislative enactments, though each province has so framed its Acts that they might suit the special conditions and requirements in it. I will briefly outline some of the measures in vogue in certain provinces.

The Punjab Relief of Indebtedness Act, 1934, is enacted to amend the law governing the relations between debtors and creditors and is modelled on the Debt Conciliation Act of Central Provinces and Debt Legislation Acts of the United Provinces. Section 5 defines 'usurious loans': "The court is advised to deem interest to be excessive if on secured loans it exceeds 12 per cent per annum simple or 9 per cent per annum compound interest with annual rests, while in the case of unsecured loans if it exceeds $18\frac{3}{4}$ per centum per annum simple interest or 14 per cent per annum compound interest with annual rests." According to Sec. 7, 'debtor' means "one who earns his livelihood by agriculture, including horticulture and makes use of the land for any purpose of husbandry, inclusive of the keeping or breeding of livestock, poultry, bees, and the growth of fruit, vegetables and the like." Landowners, tenants or servants of these are also brought under this category. Sec. 8 empowers the Conciliation Board to settle debts for amounts under Rs. 10,000. Sec. 15 lays down that the Debt Conciliation Board "shall use its best endeavours to induce creditors and debtors to arrive at an amicable settlement." Sec. 20 comes next for consideration and it states that "if during the hearing of any application any creditor refuses to agree to a fair settlement and if the debtor has made a reasonable offer, the Board may give the debtor a certificate under some conditions." No appeal or revision lies against the order passed by the Board though it can only review its own order as per Sec. 22. The meaning of Damdupat is given in Section 30: "No court shall grant decree in satisfaction, both of principal and interest for a larger sum than twice the amount which the court finds to have been due at the commencement of the Act." Under this principle, a creditor is prevented from taking exorbitant interest, and it applies to all classes covered by Sec. 7 referred to above.

In the Central Provinces also debt relief is given through various legislative enactments. According to the Debt Conciliation Act of 1933, debtors or creditors may apply to the Board which endeavours to effect the settlement. The crux of conciliation arrangement is the provision for collection of the repayment instalments through revenue agency. Other measures to

regulate moneylending and to keep under control the rates of interest are also in force in this province and these are intended for those who do not approach the Conciliation Boards. These are:—1. The Usurious Loans Amendment Act of 1934 is an improvement over the Act of 1918, its object being to compel the courts to interfere if the transactions of the creditors are unfair and if their rates of interest are excessive. 2. The Central Provinces Moneylenders Act, 1934, is designed to control moneylenders, to recognise the principle of damdupat and to facilitate instalments-paying of decretal amounts. 3. The Central Provinces Reduction of Interest Act of 1936 gives protection to landholders and tenants paying revenue or rent not exceeding Rs. 5,000 by reducing rates of interest and by limiting their credit in order to stop their taking unwise loans. 4. The Central Provinces Protection of Debtors Act of 1937 protects debtors from molestation and harassment.

Debt legislation in the United Provinces may be summarised thus:—1. Agriculturists' Relief Act, 1934, as amended by Act of 1935 comes first for treatment. Here, the term 'agriculturists' means those persons who cultivate land, those dependent upon it, zamindars and also people who pay income-tax. The benefits accruing under this measure apply to non-agricultural land of the agriculturists. Relief takes the shape of the grant of instalments, reduction in rates of interest existing and future. 2. Encumbered Estates Act of 1934 as amended by Act of 1935 whose benefits are available to landholders whose immovable properties are encumbered with debts. 3. Regulation of Sales Act of 1934 which is intended to regulate the sale of agricultural land only in execution of decrees of civil court and to put the parties in relation to the land values in the same position in which they were at the time of accepting loans. 4. Temporary Regulation of Execution Act of 1934 applies to small agriculturists in the matter of decrees up to amounts of Rs. 1,000. Under this Act, the judgment-debtor is required to deposit 25 per cent of the amount decreed for payment to the decree-holder and then he has to pay 40 or 50 per cent more in full settlement, so that after five annual instalments are paid the debt is wiped out. 5. The Usurious Loans Act of 1918 as amended by the Act of 1934 which says that no moneylender will be able to obtain a decree passed on a rate of interest higher than 12 per cent and 24 per cent per annum in case of secured and unsecured loans. 6. The Agriculturists' Loans Amendment Act of 1934 under which the Government lends money to agriculturists for paying their existing debts, so that the latter may repay the amounts in

instalments spread over a long period. Other provinces like Bengal have to their credit measures enacted for similar purposes.

Among the Native States that have followed British Indian Provinces in the direction of giving relief to indebted agriculturists, Mysore stands out prominent. Of the regulations passed by the Mysore Government, the Usurious Loans Regulation of 1923 applies to agriculturists or non-agriculturists, poor or rich. The courts are also given discretionary power to reduce the amount of interest. But the Mysore Agriculturists' Relief Regulation of 1928 is calculated to relieve from indebtedness the middle and poor agricultural classes whose income does not exceed Rs. 1,000 per annum. The courts are authorised to give time up to a period of 8 years for the repayment of debts, and even these may be paid in annual instalments. The object of this measure is to prevent the expropriation of the lands of agriculturists and to safeguard them against the fraudulent methods adopted by the moneylenders. In 1937 was enacted Debt Conciliation Boards Regulation by which the Boards give relief to agriculturists by bringing about amicable settlement between them and their creditors. No creditor is allowed to get more than twice the amount of the principal sum, and further against the decision of the Boards no appeal or revision lies. Besides, loans are advanced by the Central Land Mortgage Bank to its members. The primary land mortgage societies in turn give loans to their individual members. These loans are for amounts ranging from Rs. 500 to Rs. 5,000 and are repayable in 25 annual instalments.

A detailed consideration of the measures adopted in the Province of Madras is needed in this connection. In the past, in times of distress, direct help used to be given by takavi advances to ryots. Land Improvement Loans Act of 1883 and Agriculturists' Relief Act of 1884 and the system of co-operation introduced in 1904 are availed of by the needy. Debtors, agricultural or otherwise, are expected to get relief against usury through courts under the Contract Act of 1872 and the Usurious Loans Act of 1918, both being All-India enactments; but complaints have been frequent that the civil courts which are given discretionary powers to reduce rates of interest and penal conditions are not giving the needed or full relief to the debtors. The Provincial Insolvency Act of 1920 intended to help debtors outside the presidency town is not suited to the small debtors and agriculturists in the rural areas owing to the expensive and dilatory procedure that is to be adopted in the disposal of insolvency applications. As the Royal Commission on Agri-

culture, the Central Banking Enquiry Committee and the Civil Justice Committee recommended, the enactment of a simple rural insolvency law, by which while the debtor will not only be relieved of his burden of debt but will also be enabled to retain a portion of his land and dwelling house, seems to be imperatively needed. The opinion of authoritative commissions on Famine, Agriculture, and Banking appears to be that though a sum of Rs. 10 lakhs was advanced to agriculturists in 1934-35 under the provisions of the Acts of 1883 and 1884 referred to already, the administrative machinery set up for the operation of these Acts is far from satisfactory, that more loans are to be given, that applications for them are to be disposed of quickly, that rigour in collection is to be made less stringent, and that the agriculturists should be prevented from alienating their lands.

The Agency Tracts Interest and Land Transfer Act of 1917 is framed to help the inhabitants of the agency tracts of Vizagapatam, Godavary and Ganjam, but in effect it is neglected. Its provisions are that interest on loans to members of hill tribes are to be not more than 24 per cent and that it shall not be compound interest; that the decrees are not to be given for amounts of interest greater than the principal borrowed; that the transfer of immovable property to those outside the tribes is against law.

Nextly, the indebted agriculturists are expected to be benefited by the Act of 1935 called the Madras Debtors' Protection Act. This Act applies only to loans of amounts of less than Rs. 500 at a time and its scope is narrow. But as regards interest, it declares that relief is to be given where it exceeds 9 per cent per annum simple in the case of secured loans and 15 per cent in the case of unsecured loans and that the courts are to examine transactions on the presumption that interest charged is exorbitant. Another legislative measure introduced is the Madras Co-operative Land Mortgage Banks Act of 1934 which supplements the Madras Co-operative Societies Act of 1932. The Central Land Mortgage Bank gives loans to the primary land mortgage banks. The Government guaranteed the principal and interest on the debentures issued to raise funds. Real benefits can be enjoyed by the agriculturists who not only are inclined to carry out improvements on their lands but are also determined to pay their prior debts through long-term loans at 5 per cent interest to be granted to them by these banks. The next noteworthy enactment, *i.e.*, the Agriculturists' Loans (Madras Amendment) Act of 1935 is worked through special revenue officers, and the

Government has already lent about Rs. 20 lakhs to agriculturists enabling them to discharge their prior debts. As in the preceding Act, loans are given to borrowers for periods of 25 years at 5 per cent interest, but the maximum amount to be advanced is made not to exceed Rs. 2,000. So, this implies that in the case of debtors who can effect compromise with creditors for that amount, they can wipe out their debt. The Debt Conciliation Act of 1936 gives relief only to agriculturists who are either landholders or occupancy ryots and whose debts exceed Rs. 100. The method of conciliation contemplated under this Act is mainly voluntary.

The most important enactment made this year is the Madras Agriculturists' Relief Act of 1938 which came as an aftermath of the Moratorium Bill. As was pointed out elsewhere, the debt of the Madras Presidency is estimated at Rs. 200 crores and the interest thereon per year swells to Rs. 20 crores on the basis of 10 per cent interest, of which 1 per cent is due to Government, 6 per cent to Co-operative Societies and the balance to other agencies that give loans. This enormous burden under which the agriculturists are groaning will cause further indebtedness, low agricultural production, economic inefficiency and stagnation. Debt has a demoralising effect and the agriculturists will have no enthusiasm to improve their lands by the use of seeds, manure, implements or cattle. Government has realised that in its interest as well as for public welfare it should consider land and cultivator as national assets. There is no doubt that indebtedness will be largely responsible for class discontent, political danger and rancour due to loss of land consequent on mortgages, sales, etc. Other methods adopted to reduce debt burden in the shape of giving wide discretionary powers to the courts, advising voluntary conciliation and arbitration, rendering financial help did not bear much fruit. Hence more stringent measures were deemed necessary. The Act under consideration is designed to rehabilitate agriculture, the most important industry which gives food to the people and raw materials to industries and which promotes national welfare, though it may be at the expense of certain classes in the province. The Act applies to agricultural classes of various descriptions.

Clause 3, Section *(ii)* *(a)* defines an agriculturist as "a person who has a saleable interest in any agricultural or horticultural land not being situated within a municipality, or which is held free of tax under a grant made or recognised by Government." But persons paying profession tax of more than 8 annas and persons assessed to tax on non-agricultural land or

residential house should also have been included. The authors of this enactment have done well in including even larger land-owners as coming under its purview and as entitled to benefits under its provisions, as they are also indebted, and as such deserve protection. Landholders who pay a *peishkush* of over Rs. 500 and Inamdars who pay a quit rent of over Rs. 100 are excluded from the benefits of this Act on the score that they are middlemen who only collect rents from those engaged in agricultural operations. This is but just.

We have next to understand the meaning of 'debt.' It means "any liability in cash or in kind whether secured or unsecured, due from an agriculturist, whether payable under a decree or order of a civil or revenue court or otherwise, but excludes money due on usufructuary mortgages and rent, as also revenue tax or cess payable to Government or local authority, liability due to co-operative societies, land mortgage banks, etc." Here debt contracted on house property in villages not covered by Panchayat Boards should not have been excluded [sub-clause (*d*) of Clause 4]. Again, sub-clause (*h*) does not affect debts of agriculturists due to a woman on the 1st October, 1937, who on that date did not own any other property, provided that the principal amount of the debt does not exceed Rs. 3,000. It is not clear why this distinction is drawn regarding debts of women. In my view, logically the same exemption ought to have been granted to the infirm and aged as well. Sub-clause (*e*) is wisely designed to exclude debts due to co-operative societies, land mortgage banks, etc., the reason being that these institutions in calculating arrears do not charge penal and compound interest but only simple interest not exceeding 6 per cent. The principle on which co-operative banking works is that the banks are intended for giving relief to indebted persons, that the borrowers manage the terms of borrowing, the rates of interest, and that these institutions have no desire in expropriating the properties of their indebted members. Regarding the rate of interest payable by agriculturists on the principal, the old debt-balance outstanding after scaling down and on the new debts incurred after the enforcement of the Act, it is not to exceed $6\frac{1}{4}$ per cent per annum simple interest (clauses 12 and 13). But the proviso to Clause 13 saying "that the Provincial Executive may alter and fix any other rate of interest from time to time" is not wisely made as it will import an uncertain element into credit transactions in normal times. It must be admitted that even the Reserve Bank of India is just now attempting to regulate the bank and the money market rates.

Presuming that the debt of the Presidency of Madras stands at Rs. 200 crores, a rough estimate of the debt scaled down under the Act may be made at Rs. 25 crores. So, to make up the balance, more credit facilities are to be given to the debtors through various credit agencies. The principles governing compulsory scaling down of debts and the future rates of interest are contained in Clauses 7, 8 and 9 of the Act. The debts in respect of which relief is sought to be given fall into two groups. The first consists of those incurred before the depression period which is taken as starting from 1st October, 1932, and for which interest is wiped off. The modified form of damdupat continues to apply. If a debtor had paid twice the amount of the principal he borrowed he is considered as discharged, and if he had done that to a lesser extent he is required to tender only the difference. In other cases, the principal is due but the interest is wiped out. Provision governing scaling down of debts incurred after 1st October, 1932, reads as follows:—" Interest is to be calculated at not more than 5 per cent per annum simple interest and all amounts previously paid towards interest are to be credited and that only the amount found outstanding for interest shall be paid together with the principal or portion thereof." It is argued by some sections of the public that this division of debts into pre-depression and post-depression groups is arbitrary, that application of different lines of treatment is confusing, that debtors and creditors cannot be divided into two water-tight compartments, that there cannot be any separation of people into agriculturist and non-agriculturist classes, that litigation will be increased, that the debtors may conspire with the moneylenders to evade the law, and that the Act throws an apple of discord into village life. In a word, the only answer that can be given to this criticism is that emergent measures as these are necessary in national interest. Support and co-operation by those citizens having the welfare of the indebted poor at heart will be appreciated.

The exceptions contained in Clause 10 sub-section (*iii*) relate to the sums due to companies governed by Companies Act of 1913 or the scheduled banks defined by Section 2 (*e*) of the Reserve Bank of India Act of 1934, provided that the interest payable is not more than 9 per cent per annum. These in my view do not require any comment. Clause 15 deals with the question of arrears of rent due to landholders and other big proprietors. The implication of this clause is that all arrears of rent outstanding for Fasli 1345 and prior Faslis either due or decreed are to be considered as discharged, while the rents for

Faslis 1346 and 1347 could be collected. In other words, it means that if a tenant desires to claim such a benefit he should pay the arrears for the current Fasli 1347 as well as those for the previous Fasli before 30th September, 1938. The object of this is to create a new psychology among the tenants, to prevent a continuation of an attitude of their falling into arrears year after year, to give protection to them against suits or execution proceedings for arrears not realised by landholders, to allow them to carry on their normal agricultural operations and to promote goodwill between the tenants and their landholders.

The debtor classes say that the Act is not adequate, while the moneylending interests opine that it is an expropriatory enactment. Generally speaking, the Act benefits all classes and all communities of debtors and affects all creditors. It is said that the State is depriving moneylenders of certain accrued rights but it is to be recognised that the inherent right of the State is to modify legislation according to the needs and circumstances and to safeguard the interests of all sections, strong or weak. The moneylender no doubt fulfils a useful rôle in the economic life of the village but we have also to realise with what sort of people he is dealing, not of the educated urban type of population who are accustomed to receive mutual benefits from organised banking institutions. By this time, the pessimistic forecasts that rural credit will contract have vanished into thin air. The rural moneylender has the capacity to exhibit his intelligence under different conditions and one need not presume that he will give up his profession, because he knows full well that the villager knows him to be a man of power, prestige and influence. The problem of indebtedness will not arise in the case of persons who can adjust their expenses with their incomes or who wisely borrow for special objects; but in the case of the bulk of the agriculturists the usual feature which one comes across is that they borrow indiscriminately and cannot ultimately get out of the net. To obtain credit is all the more easy in case of rise in land values. Another interesting point that must be noted is that when money is available credit is easily given and borrowings become unregulated, making the position still worse. It is difficult to say whether this Act will have reaction on capitalistic lenders though they may be inclined to curtail their credit to agriculturists to a certain extent and for some time. But credit is bound to come out. Such persons instead of giving loans to the cultivators may deposit their money in the banks and the same capital will eventually be made available for credit purposes. The Madras Relief Act of this year touches only a

fraction of the total indebtedness of the presidency. Urban population including wage-earners, small traders, salaried classes and other sections who are in the grip of money-lenders also need relief in the interest of sound national economy.

Indebtedness is not only the result but the cause of chronic poverty of the rural agricultural classes mainly, which can be partly removed by increasing their income and helping them to have a surplus budget. The more effective remedial measures are to be adopted like licensing of moneylenders, regulation of their accounts, and stamping out usury by legislation. Credit must be controlled and the theory of respect for contracts cannot be upheld when the over-trustful weaker party does not understand fully the terms and implications of the contract and as the disillusionment of the other party requires to be dispelled. Government can undertake productive works and projects, can right the disturbances in economic life caused by depressions, currency manipulations, etc., is justified in ignoring the contracts as moral necessity exists for helping the distressed agriculturists and can also relieve unemployment. In Madras, Debt Conciliation Boards are working in some districts to effect settlements between creditors and debtors. In addition, it is desirable to establish banks in every district in order to give long-term loans at low rates of interest. It will also be helpful if exemption from stamp duty and registration fees of the transactions is given. Moreover, facilities are to be given for meeting the seasonal credit operations and for the movement and marketing of crops of the cultivators.

In our country serious attempts for creating agricultural credit corporations like those in England are to be made. Co-operative organisations if they are efficiently worked can render considerable help in the matter of supplying credit to the needy. It is estimated that there are about four crores of agricultural population living in 50,000 villages in the Madras Presidency. There are about 10,000 rural credit societies in as many villages having a membership of nearly 5 lakhs. Out of these only 1,000 are reported to be working well. The loans outstanding in these societies come to nearly Rs. 4½ crores and some of these are even in arrears. Calculations go to prove that every year about Rs. 2 crores are distributed through the rural co-operative credit societies, excluding the land mortgage banks. It is advisable that short-term loans for seasonal purposes should be given by these institutions and not for long-term objects like clearing old debts or for improving land, which work should be undertaken

by primary land mortgage banks helped by the Central Land Mortgage Bank. Besides, intermediate credit can be offered through funds raised for the purpose by provincial or central banks repayable in about 7 years. Such amounts borrowed can best be utilised by the peasants for effecting repairs to lands, getting irrigation facilities, buying implements and cattle and for clearing small debts. Short-term credit is repaid out of the next harvest, intermediate credit is repaid in a small number of years out of the margin of income, while long-term credit is repaid out of the greater profits created by investing capital permanently on land. A portion of seasonal credit not repaid gets accredited to the standing debt and this is different from prior debt. Consequently, the problem of obtaining rural credit for profitable agricultural enterprises stands on a different footing from the problem of reduction and redemption of the standing debt of the farmers. The view that the agriculturist always unwisely or improvidently borrows and that he is not creditworthy is not quite correct and it is even exaggerated. None can deny that there is urgent need to finance him. The courts should be given power to order the amounts decreed to be paid in instalments. The co-operative banks and institutions if they have funds available will be doing a great service if they undertake to take up the debtors' properties as security and to pay the instalment amounts to the decree-holders. It is also necessary to dispel the psychology prevailing among the agriculturists of living for the day and in considering debt as an ordinary condition of life, and above all to help him to provide for bad days. Some of the agriculturists who do not find sufficient work on land may be induced to migrate to industrial centres or to new lands to be taken up for colonisation.

Educational propaganda on an intensive scale is to be launched upon in order to remove useless social expenditure. It is gratifying to note that in the rural development schemes, the Government and the public are co-operating for the amelioration of the village folk in economic, social and intellectual spheres. Agricultural production more than all has to be regulated and controlled as this will greatly help Indian industries and the export trade. Since 1935 the Central and Provincial Marketing Officers in conjunction with officers of some Indian States are carefully studying the question of commercial and co-operative production and marketing of various kinds of crops and their efforts go a great way in helping the agriculturists to raise better quality products, to find ready sales for them and to enjoy fair prices.

Closely associated with the problem of indebtedness and of the economic uplift of the villager is the subject of rural reconstruction which is claiming an increasing attention from all quarters. The central idea of village uplift seems to be to transform the average poverty-stricken indebted illiterate peasant-farmer into a moderately well-to-do person, to inspire him with a spirit of progress and enterprise and to make the countryside bright and prosperous. It is a vast and up-hill campaign in which the attack is to be made along different lines and towards different objectives to achieve real progress. A strong, persistent and well-financed Government policy is required to galvanise into effectiveness the various elements which carry part of the solution in their several ideals and activities. The various Government Departments have to systematically co-ordinate in this constructive work. It is necessary to rationalise our rural economy and this can be done to some extent by consolidation of holdings, improvement of rural transport, co-operative purchase of manures, implements and seeds, sale of produce, scientific tillage, taking in new methods of storage and handling crops, inauguration of land settlement and construction works, correlation between agricultural demonstration and practice and the like. Good work has already been achieved in this direction and they show how a more efficient India is coming into existence, how there is a stir and a new note of hope in agricultural India. Above all, the agency that is to work all these schemes of reconstruction and rehabilitation should be efficient, so that the villagers may be inspired with a message of self-respect and can endeavour to a higher stature all-round. These workers should imbue agricultural communities with ideals of leadership and service.

It is well known that the agriculturist requires a supplemental occupation to add to his meagre income. In this particular nothing seems to be more important than his specialising in some kind of handicraft industry. Already many associations are at work and are achieving the desired results. The types of cottage industry which are associated with farming, for which highly finished tools are not indispensable, and which produce articles of domestic consumption have been able to meet the competition of large-scale production. Apart from the technical methods to be adopted in many types of rural trades buying and trading organisations should be established and utilised in working out a constructive policy of commercial and technical information and guidance. It is also desirable to encourage rapid and flexible development of rural industries

and decentralise many urban industries. This comprehensive programme will ensure economic prosperity of our country. The problem of debt should not be understood as an isolated factor in our economic life. In order to relieve the burden of debt from the poor Indian agriculturist constructive permanent campaign in the matter of raising his standard of living, helping him to earn increased wages and to promote all-round betterment are certainly to be adopted. It is a difficult and tedious process but, nevertheless, one to which all patriotic Indians should devote their thought and energies.

DEBT LEGISLATION

BY

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"DEBT LEGISLATION"—is a fascinating subject for economists and politicians. It is, however, unfortunate that in our country both of them run off at a tangent. Accordingly, debt legislations in various provinces have undoubtedly their political significance; but it is debatable if economists are happy over the remedies adopted.

Census reports show that India lives in villages; trade reports indicate that agriculture is our main business and industry; Agricultural Commissions and Banking Committees emphasise that the indebtedness of ryots is the greatest hindrance to our agricultural prosperity. Reports, papers and enquiries are being added to for illustrating the truth of these statements, but Government does not propose to plan agriculture in a way that would avoid the pitfalls clustering around it. Hence, politicians and economists are parting company for obvious reasons. The problems thus multiply merrily: the countrymen crawl on sadly.

Our ryots are indebted: the malaise is not in borrowing but in their incapacity to repay loans. The reasons which lead to the borrowing are distinct from those which make them impossible to satisfy their debts. Borrowing is inevitable, because cultivator lives on the margin of subsistence and he has "to wait for half a year before he receives the return of his labour, and in far too large an area where there is only one crop in a year, the interval between successive receipts may be full twelve months." Debt can only be satisfied if the return of the cultivator's labour is adequate for the purpose. If the agencies for loans are improved, that smoothes the rigours of usury; if the purchasing-power of cultivators is increased, that is a step towards satisfaction of debt. The one is complementary to the other, and piecemeal effort will prove abortive on the rock of indebtedness.

Cultivator utilises the agency of moneylender to get loans; he has land to till, he has traders to sell his products. The moneylender lends for profit. Cultivator borrows from necessity, and necessarily there is wide room for deceit and chicanery. Land is the basis of production but the best product depends on various factors, the most important of them being the climatic

conditions, the chemical fertility of the soil, the water-supply, the prevailing wage rates, security of tenure, the size of the farm, the amount of capital at the farmer's command and the cultivator's special aptitude and training. The disposal of produce at a fair price depends on the holding power of cultivators, the nature of marketing organisation, the regulation of tariffs, subsidies and guaranteed prices, etc. For all this the active intervention of Government is essential. Indebtedness is the core of the problem of Indian agriculture, and it does not and cannot yield to any specific, magical solution.

The Royal Commission on Agriculture in India stated an unvarnished truth in a colourful language when they said: "To a very great extent, the cultivator in India labours not for profit nor for a net return, but for subsistence. The crowding of the people on the land, the lack of alternative means of securing a living, the difficulty of finding any avenue of escape and the early age at which a man is burdened with dependants, combine to force the cultivator to grow food wherever he can and on whatever terms he can. Where his land has passed into the possession of the creditor, no legislation will serve his need; no tenancy will protect him; for food he needs land and for land he must plead before a creditor to whom he probably already owes more than the total value of the whole of his total assets."

This fatal inevitability of indebtedness[1] can be overcome if the purchasing-power of agriculturists is improved, and that can be done if a forward agricultural policy is initiated with the following specific purposes:

(1) Financing agriculturists at low rates of interests;

(2) Better marketing of agricultural produce,

(3) Subsidies, bounties or tariffs in the interest of agriculture,

(4) Improved communications,

(5) Improvement in public health,

(6) Training of the character of the agriculturists by education to develop habits of thrift and saving,

[1] The main causes of indebtedness may be summarised as follows: failure of crops from drought; poverty with irregularity of income; uneconomic nature of holdings; ignorance and improvidence, extravagance, ancestral debt, expansion of credit; increase of population without corresponding increase of produce; facilities for borrowing; security of tenure exciting the cupidity of moneylenders. The question of credit economy is discussed in the author's "Studies in the Land Economics of Bengal," published in 1935.

(7) Training of labour,

(8) Improved methods of agriculture and intensive cultivation,

(9) Better utilisation of leisure and spare time,

(10) Stoppage of wastage by co-operative efforts,

(11) Stoppage of leakage through social, religious, and ceremonial affairs, by a new orientation of outlook.

In dealing with agriculture the following peculiarities,[2] or rather handicaps, should be taken into account:

(1) Agriculture remains scattered, individualistic and small scale. The unit of production is essentially a one-man concern and the credit available for the concern is limited to the credit of one-man or one-family. "While the industrialist can capitalise the future, or raise money on estimated earning power, the agriculturist cannot. While, therefore, the manufacturer raises his capital by subscription, the farmer must raise much of his capital by credit."

(2) In the very nature of things, the agriculturist is isolated and remote from the normal opportunities of obtaining credit.[3]

(3) In agricultural production there is inelasticity of supply, and the comparative difficulty of adjusting the supply to fluctuations in demand. "Output cannot be stopped in a farm as it can be in a factory; if the land is not cultivated by the man, it will produce its own crops of weeds. The need for finance thus remains constant, though production may be unprofitable."

2 Discussed by the Central Banking Committee in its report.

3 "For the greater part of the year and especially when he is most in need of credit, his capital is sunk in forms of wealth, difficult for anyone but an expert to value and not readily chargeable as security for an advance, while his personal training and methods of life are not such as to fit him to surmount these natural disadvantages and to establish that position in the credit market to which his financial stability and high standard of probity generally entitle him."—Report of the Committee of Credit in England, 1923. "The secret of successful industry is to buy your finance cheap and sell your produce dear. The Indian buys his finance dear and sells his produce cheap"—Sir Daniel Hamilton.

(4) The principal security in agricultural finance for a long term is land[4] which is unsuitable in commercial banking, for land is not a readily realisable asset and its price is liable to peculiar influences.

(5) The liquid and easily realisable assets of the cultivator to back up a banking credit are his crops or live-stock or dairy produce. Even these are precarious forms of security owing to the physical risks to which production is subjected, such as floods, failure of monsoon, pestilence among live-stock and so forth.

(6) The phenomenon of over-production affects agriculture most, because the agriculturists are disorganised.

If indebtedness of cultivators is to be tackled, all the defective fronts leading to leakages of agriculture shall have to be attacked. Financing of cultivators, production of agricultural produce, distribution of marketable surpluses, and tenure of agricultural land suited to the requirements of financing, production and distribution, all these coupled with the improvement of man-power should proceed in a planned manner. Indebtedness is not a problem: it is the resultant of so many of our agricultural problems. It is not *per se* an evil: it is an evil because the leakages leading to debts are widening.

For this stupendous problem we are offering debt legislation. Before the introduction of the Government of India Act, 1935, in 1937, debt legislation was in existence in many provinces. Under the reformed constitution, many Provincial Governments are also trying to improve the legislation. The Madras Agriculturists Relief Act of 1938 attracted the greatest amount of attention. This is, in short, an Act for scaling down debts and interests thereon, and arrears of rent. The principal provisions are: (1) all interests on debts incurred before the

[4] "The lack of homogeneity in land and the difficulties inherent in land valuation obviously disqualify the land as a measure of value. But even in the more modest task of serving as a basis for the issue of notes in terms of the standard metallic currency, the usefulness of land is rather limited. Even if land banks notes were to have an immediate recourse to specific plots of land, lack of mobility and liquidity, characteristic of land, and the fluctuation of land values would be sufficient to deter many from accepting land notes as readily as coins of notes redeemable in coins."—Wilhelm Vershofen in "Encyclopaedia of Social Sciences."

1st of October, 1932, shall be deemed to be discharged, (2) interests on debts incurred after 1st of October 1932, shall be calculated at not higher than 5 per cent, (3) the rate of interest payable by agriculturists on new loans is not to exceed $6\frac{1}{4}$ per cent per annum, (4) where after paying the rent for Fasli 1347 on or before September 30, 1938, the tenant also pays the rent for Fasli 1346 on or before September 30, 1939, he obtains a full discharge in respect of all arrears of rent accrued for previous Faslis (1345 and prior Faslis). This is a radical measure in so far as it attacks arrear rents. The Madras Debtors' Protection Act, 1934, modelled on the Punjab Regulation of Accounts Act of 1930 requiring the moneylenders to keep and maintain their accounts in the prescribed form and to furnish to the borrower every six months a statement of his debt, and the Madras Debt Conciliation Act, 1936, providing for a voluntary amicable settlement of debt, have been in existence. Debt legislations on similar lines such as scaling down of debts, regulation of the rate of interest, restriction of the movement of creditors for a definite period, legislative pressure on moneylenders to act more discreetly, are found nearly in all the provinces.

In Bengal we have the Bengal Agricultural Debtors' Act, 1935, which is creating havoc in the realm of rural credit—havoc in the sense that it scales down debt by curtailing the natural flow of credit. Agriculturists are panting for loans: Government are proud of the Act. If it is found that the scaling down and liquidation of debts are necessary to launching any plan of reconstruction for making agriculture remunerative and cultivators as national assets in the matter of production, the sacrifices of creditors are undoubtedly justified. If, on the other hand, it is found that debts are wiped away for the mere fun of hurting the creditors with no ultimate plan in view, debt legislations on the lines as are being introduced in all parts of India under the pressure of political expediency are of tragic interest to economists. The tackling of indebtedness through a policy of scaling down or liquidation, as the case may be, unless coupled with other supplementary measures of checking the wastages leading to indebtedness, is an evidence of lack of appreciation of the gravity of the problem.

The following measures are essential for approaching the problem of indebtedness:

(1) To a very great extent our holdings are uneconomic or are deteriorating beyond economic level. If a

cultivator is fastened round with the rope of uneconomic holdings, no heroic measure can rescue him out; he is a dynamite of social unrest. The holding should not be allowed to deteriorate beyond economic level and should not also exceed twenty-five acres, as sufficiently large holdings would bring forth new problems. The holding reaching the minimum economic unit shall be cultivated by the owner or occupier as the case may be. The occupier of uneconomic holding, even if freed from debt and rent, will again entangle himself in the coil of indebtedness and will breed insufficient labour, lower the standard of living and delay the improvement of agriculture.

(2) The conditions of tenancy must be fair: there will be a cultivating tenure, the security and full rewards of labour being assured; public demands upon the cultivators will be moderate; there will be full freedom with regard to production and disposal of produce. A scientific tenure on the part of the cultivator of land is necessary as it provides the basis of credit, the basis of production and the basis of orderly distribution of produce. "The character of the tenure, as affecting the rights and general positions of the occupants of the soil, is of more vital importance in India than in countries where there are other fields of employment for the masses of the population."

(3) The pooling of the resources of agriculturists in a way as to facilitate better loans for their productive purposes. If agricultural labour can be organised and controlled, its credit power will increase manifold and can provide adequate funds for its business. Need and usury can be vanquished by placing agriculturists above needs and within the easy reach of scientific credit. Villagers have bankers but no banks; they have needs but no organisation to satisfy them. Our moneylenders are there: they have liquid capital within their control. That should be made to flow through state-aided credit organisations, so that the credit money may not shrink, and the agriculturists not ensnared in dishonest transactions. "To democratise the

policy of production we have to democratise the control of credit."

(4) The quantity and quality of agricultural production are to be improved. The agricultural resources of India are very rich, but through defective methods of production, we get neither quantity nor quality. Better seeds, better sires, better manures and deeper cultivation—all these are very necessary. Indian famines are caused by drought and an assured supply of water is essential for preventing the failure of food-crops on which the subsistence of the population depends.

(5) Rise in the prices of agricultural produce is to be brought about through improving the existing chain of distribution, or regulation of customs duties, or deflation of the exchange ratio, or by any other methods of control and subsidy. But a mere rise in prices in a country, where agriculturists have uneconomic holdings and the pressure of population on land is keen, will bring forth new difficulties in its train; the deficit of those who are already insolvents will increase considerably.[5] And their numbers predominate in our villages. This emphasises the case for Small Holdings Movement[6] and the intensive method of farming.

(6) " At the root of much of the poverty of the people of India, and of the risks to which they are exposed in seasons of scarcity, lies the unfortunate circumstance that agriculture forms almost the sole occupation of the mass of the population, and that no remedy for the present evils can be complete which does not include the introduction of a diversity of occupations, through which the surplus population may be drawn from agricultural pursuits, and led to find the means of subsistence in manufactures or some such employments." (Report of the Indian Commission, 1880.)

5 *Vide* Land and Labour in a Deccan Village, Study No. 2, by H. H. Mann, Chapter VIII, " The Effect of Rise of Prices on Rural Prosperity."

6 The Small Holdings Movement in Europe is discussed in the author's " The Tenure of Agricultural Land " published in 1937.

The problem of indebtedness is not capable of any spectacular solution. It requires a sort of "planning." There are remedies within the control of the Provincial Government—there are others within the jurisdiction of the Federal Centre. Even there are remedies, which do belong to the provinces but cannot be effectively applied without the co-operation of all provinces. To deal with the problem it is not only necessary that the provinces should be alert and alive, but also that they should co-operate among themselves and that the Federal Centre should extend help and authority, wherever and whenever necessary. The hindrances inherent in a federal form of Government for stabilising economic prosperity shall have to be overcome. An Inter-provincial Economic Board deriving authority from the federal legislature with the full co-operation of the provinces should, therefore, be brought into being to plan out agriculture in a way commensurate with the needs and peculiarities of the country. Otherwise, provincial debt legislations interfering with the natural flow of credit money and providing no better facilities for loans to agriculturists will defeat all the good intentions and clog the wheel of economic progress. All this involves the tragedy of waste.

DEBT LEGISLATION IN BIHAR AND ORISSA—HISTORY AND RECENT DEVELOPMENTS

BY

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In Bihar and Orissa there has hardly been in the past any debt legislation. The Land Improvement Loans Act, 1883, or The Agriculturists' Loans Act, 1884, are common to the whole of India. Loans advanced under the former Act are negligible while the latter Act is restricted almost entirely to emergencies occasioned by drought or flood. Another Act which is supposed to give protection to the debtors against excessively high rate of interest is The Usurious Loans Act, 1918. As pointed out by the Bihar and Orissa Banking Enquiry Committee the working of this act has, in actual practice, been a failure and the courts are reluctant to interfere with the contracted rate of interest unless it can be established that the transaction was unconscionable or made under undue influence. The main reason of its failure has been its vagueness and everything has been left practically to the discretion of the Court.

An interesting debt redemption scheme was tried in the Ranchi District of Chota Nagpur in 1906—12. It was confined to Mundas—an aboriginal tribe, and among them mainly to substantial cultivators. Those who were hopelessly in debt, and therefore considered beyond hope, were left out. The rate of interest was fixed at $6\frac{1}{4}$ per cent per annum and the repayment was to be made in small instalments spread over a fairly long period. The whole scheme was given up in 1912 as a failure. A good many of these cultivators contracted loans from the village moneylenders in order to pay Government dues or to meet the seasonal needs. The lesson of this experiment should not be lost sight of in any scheme of debt redemption.

This is all that has been done in the two provinces of Bihar and Orissa in the past to relieve the burden of indebtedness apart from the active promotion of the Co-operative movement. Now we shall turn our attention to what has been done since the inauguration of the provincial autonomy. In Bihar The Money-lenders Act, 1938 (an act to regulate moneylending transactions

and to grant relief to debtors) has already come into operation while in Orissa it is proposed to legislate broadly on the lines of the Bihar Act. The statement of objects and reasons of the Orissa bill runs thus: "There is at present no legal enactment regulating the business of moneylending in Orissa. Very high rates of interests are current . . . . The need for legislation is felt to be urgent to give some more relief to the large number of people who are at present compelled to pay exorbitant rates of interest. . . ."

The main provisions of the Bihar Act may be classified as follows:—

(*a*) *Registration of moneylenders.*—Section 8 provides that a moneylender shall not be entitled to institute a suit for the recovery of loan advanced by him after the date of the commencement of this Act unless he was registered under this Act at the time when such loan was advanced. Registration is not necessary for the recovery of loans advanced before the Act came into operation.

(*b*) *Maintenance of regular account.*—Section 7 provides that all transactions must be regularly recorded and maintained showing for each debtor the date of the loan, the amount of the principal of the loan, the rate of the interest charged, the amount of every payment received and its date and other agreed terms between the lender and the borrower; a duly signed and stamped receipt (if necessary) must be given to the debtor for every sum paid by him. Further within seven days of the advancing of the loan a copy of the necessary entries as to the loan advanced, rate of interest, etc., must be delivered to the borrower and once every year a full statement of accounts must be delivered to the borrower. Again a debtor must be given a signed receipt for every pawned article with its general description. Any breach of this provision is punishable with imprisonment and fine. Another important provision makes it illegal to charge 'Salami' or 'Batta' or to deduct any sum at the time of advancing the loan.

(*c*) *Maximum rate of interest.*—The maximum rates of interest have been fixed at 9 per cent and 12 per

cent per annum in cases of secured and unsecured loans respectively. Compound interest is declared void on all loans advanced after the commencement of this Act. In cases of all loans advanced before or after the commencement of this Act the rule of Damdupat is applied. In other words the amount of interest decreed by a court (including the amount of interest already paid) must not be greater than the principal of the loan. Further the courts have been given power to go behind agreements purporting to close previous dealings and creating a new obligation and to reopen the transaction and relieve a debtor of all liability in respect of any interest in excess of 9 per cent or 12 per cent per annum as it is a secured or unsecured loan.

(*d*) *Exemption of a part of holding from sale in the case of an agricultural debtor.*—The agriculturists (raiyats) have been given special protection under this Act. Their holdings, to the extent of one acre, if these do not exceed three acres and up to a maximum of one-third of the holding, at the discretion of the court if they exceed 3 acres, are exempt from attachment and sale in execution of a decree passed against them.

(*e*) *Mortgage suit.*—In the case of a mortgaged property court may order payment in instalments after taking into account the repaying capacity of the judgment-debtor. Further the court may order sale of only a portion of the mortgaged property to the extent to which it may be necessary for the discharge of the debt.

We all realise that the problem of indebtedness in our country is an exceedingly serious and complicated one not capable of an easy solution. The burden of debt is shockingly heavy, more so because a major part of it is unproductive. The catastrophic fall in the price of agricultural produce during the last ten years has made the burden beyond the repaying capacity of a fairly large number of the cultivators. The rate of interest is excessively high and it is one of the major causes of perpetual indebtedness in our country. Substantial reduction in the rate of interest is absolutely necessary in order to confer any

permanent benefit on the debtors. Again some of the money-lenders are dishonest and unscrupulous. They do not maintain any regular or systematic accounts. Receipts for repayments are generally not given and sometimes accounts are manipulated with the result that a debtor has to continue to be a debtor all his life. Finally, we have to note that seasonal borrowing for one reason or other is inevitable in our present economic condition. The Bihar and Orissa Banking Enquiry Committee had estimated the total rural indebtedness at 134 crores and the annual borrowings at 34 crores (that is, one-fourth of the total debt). Where the annual borrowing is such a big sum and so large a part of the total borrowing we should be careful in enacting debt legislation so that the source of credit might not be dried up or considerably thinned out with the consequent suffering to a large mass of people.

Serious objections have been raised against the regulation of the rate of interest by law partly on the ground that it will adversely affect the rural credit and partly on the ground that such legislative enactments are generally ineffective and, therefore, useless. Moneylenders will easily be able to circumvent the provision regarding the rate of interest by clever and surreptitious means. These objections are, mutually contradictory. If moneylenders are generally likely to circumvent the restrictions regarding the rate of interest the rural credit will not be adversely affected. If, however, we carefully examine the conditions of our economic life we will come to the conclusion that such objections are based on misconception. Since borrowers have no alternative means of getting credit and are in desperate need for the same they are easily exploited by moneylenders. They have hardly any bargaining power and hence they have to pay high rate of interest demanded by the latter. The case is, to a large extent, similar to that of a capitalist employer exploiting his weak and unorganised workers. Limitation of the rate of interest will, to a considerable extent, check such exploitation. It is not denied that this law will not be violated but this is no valid reason for not legislating. There is hardly any law in the society which is not violated. Moreover the chances of evasion are very greatly reduced since provisions have been made regarding registration of moneylenders, maintenance of their accounts in proper manner and for furnishing, as a statutory duty, statements of accounts at regular intervals to the borrowers. The Orissa bill does not require a moneylender to give a copy of the necessary entries as to the loan advanced, rate of interests, etc., nor a full statement of account once a year to the debtor. This

is a serious omission. The Collector has also been given power to cancel registration certificate if in the opinion of the court a moneylender is guilty of fraud or of breach of any of the provisions of the Act or if he is otherwise considered unfit to carry on the business of moneylending. All these will have a deterrent effect on fraudulent or dishonest practices for most of the moneylenders cannot afford to see their certificate cancelled and to suffer consequent humiliation and indignity not to speak of a probable loss of income. The supply of credit will not also diminish to any appreciable extent because moneylenders have not generally other equally remunerative means of employing their money. They would surely prefer to have a lower rate of interest than to let their capital lie idle provided the rate of interest is not very low in relation to the labour and risk involved in moneylending. The Madras Act has fixed the rate of interest at $6\frac{1}{4}$ per cent per annum for agriculturist debtors which would be too low in the case of Bihar or Orissa. A rate of 9 per cent in the case of secured and 12 per cent in the case of unsecured loans as fixed by the Bihar Act and as proposed in Orissa is a fair rate. Of course if the risk involved in moneylending and the uncertainty of the money lent coming back after a reasonable interval could be removed by any piece of legislation, the reduction in the rate of interest would be immaterial. Some moneylenders will no dout be reluctant to get themselves registered in the beginning as they would be rather suspicious of the implications of registration. But within a short time this reluctance will disappear to a very large extent. Those who are not professional moneylenders but who simply lend out any surplus capital now and then to their neighbours, friends or relations will disappear from the money market and to this extent the supply of credit will be adversely affected. The part played by this class of non-professional casual lenders of money varies from one locality to another. It is fairly common among the middle class in urban areas.

The Orissa bill defines moneylender as one "who advances a loan in the regular course of business of moneylending with a capital of more than a sum of rupees one thousand." That means that a person who is a casual lender need not register himself, nor is he required to keep accounts or to give receipts. He is not also in any way subject to other provisions of the act regarding maximum rate of interest. If a person has a regular course of business of moneylending and if his capital is not more than Rs. 1000 he need not be registered, but he is not entitled to charge interest over and above a rate of 9 per cent or 12 per

cent per annum as the loan is a secured or unsecured one and he is also subject to the rule of Damdupat and to the other provisions of the bill. These are very serious lacunae in the bill and, it is feared, they will defeat the purpose of the bill to a large extent which in its entirety governs only professional moneylenders with a capital of over one thousand rupees. The objections against the defective provisions may be summarised as follows:—

First, the onus is on the borrower to prove that his creditor has advanced loan in the regular course of business of moneylending. It is not easy to prove this. It may also lead to *benami* transactions, that is to say, money may be lent in the name of wife or other relations. Secondly, there are a large number of moneylenders whose capital does not exceed Rs. 1000. Cultivators mostly borrow from this class of moneylenders and the amount of loan varies from Rs. 20 to Rs. 100. It is this class of cultivators who need protection most and it is they who will get none.

Both the Bihar Act and the Orissa Bill give power to Government to exempt any moneylender or class of moneylenders from all or any of the provisions of the Act. If, by this provision, Government permits Co-operative Societies or other institutions to charge higher interest that would defeat the purpose of the bill altogether. It is suggested that under this clause casual lenders of money be exempted and casual lenders be defined as those who lend, say, not more than twice a year, who have not lent to more than two persons at any time and whose total capital does not exceed Rs. 500. But they should be exempted only from the clause providing registration but must remain subject to other provisions of the Act.

The Bihar Act completely bars casual loan while the Orissa Bill errs on the other extreme.

Neither the Bihar Act nor the proposed Orissa Bill provides for the voluntary or compulsory reduction of debt. It is proposed to legislate for debt conciliation in Bihar. In C.P. Debt Conciliation Boards have been working for the last ten years or so. In Bengal they have been working for about one year. But opinion is very much divided as to their permanent utility. Apart from the fact that serious complaints are being made regarding the working of these boards there is a very great danger that these will lead to a complete drying up of the rural credit unless

Government or co-operative credit steps in to replace the money-lenders. Co-operation has been tried and found wanting. Nor is it likely to succeed in the near future in our present social conditions. The proposed Land Mortgage Bank will not be very helpful in this respect for the provisions of this Act are so exacting that no agriculturist will be able to take full advantage of the offer of loan by such a Bank. Government can hardly take up this for obvious reasons. Moneylenders are indispensable under the present conditions. This is an overwhelming consideration against any enactment for debt conciliation. The agriculturist will find it impossible to carry on his operation without credit. It would be far more preferable to legislate on the above lines and to give up the idea of debt conciliation for the time being. Moreover the operation of the rule of Damdupat itself to a considerable extent will serve the purpose of debt reduction. The law provides that if interest equal to the principal sum has already been paid in the past the balance of the interest due will become void and no further interest will accrue in future; if the interest paid is less than the principal sum then only the difference between the principal sum and the interest already paid will be valid. The balance of the interest will be void. This is an indirect but an effective way of reducing the burden of debt. The act also protects certain minimum amount of land from attachment and sale. This is something on which the agriculturist can fall back upon without becoming a landless labourer. It would be too much of discrimination against the moneylender to deprive him of most of his capital by forcing him to agree to accept a small part of what he had loaned out. That would be a good reward indeed for all the indispensable services he has rendered in the past. His share of responsibility for the present plight of agriculturist, if any, is very limited. The whole social and economic organisation of the society is responsible for the present plight of our cultivator and in all equity and justice the burden of relief should fall on all sections of the community and not only on the moneylender. Some of the moneylenders are in no way in better economic conditions than a considerable number of their debtors. The agriculturist debtors are also getting further relief in the form of reduction of the arrear of rent and lowering down of the rent itself.

The rule of Damdupat is likely to be beneficial in other ways too. There is a common tendency to allow interest and compound interest to accumulate till the total sum due becomes very high and the whole property of the debtor has to be sold in payment of debt. With the rule of Damdupat in operation it will not be

to the interest of a moneylender to delay legal action. And it is much preferable to let a part of the property be sold than to postpone the evil day and let the whole property slip off from the hand.

The lastest Orissa bill omits the very sound principle of exempting a certain minimum amount of land from attachment and sale in execution of decrees for debt. The earlier one had a provision similar to that of Bihar Act. It is an unfortunate omission.

The distribution of powers under the Government of India Act, 1935, makes it almost impossible for the provinces to enact Moneylenders' Act or Debt Conciliation Act which would give complete and effective protection to debtors. Firstly, the provinces have no power to regulate or limit the rate of interest charged by banks. There are many small banks which can hardly be distinguished from moneylenders. Many more may be incorporated to escape the provisions of the provincial Acts. Secondly, item 28 of the federal list excludes all debts falling under the category of bills of exchange, promissory notes and other like instruments from provincial sphere. In other words, all loans which have been advanced in the past or may be advanced in future on handnotes are not subject to the provisions of the Moneylenders' Act. Nor can a debtor appeal to the Debt Conciliation Board for the reduction of these loans. It is a common knowledge that a large part of our debt, particularly in the case of small debtors, is based on handnotes.

Under the circumstances it is necessary for the provincial Governments to approach the Government of India with a request to enact legislation for the limitation of the rate of interest, reduction of debt and other necessary provisions which would be applicable to banks, bills of exchange and promissory notes. This law should be modelled on the lines of the recent Army Act. The provinces should be given the option to enforce the law in their areas and should also be given the power to make rules fixing maximum rates of interest for different types of loans. To avoid any future discrimination against banks it may be laid down that the rate of interest and other conditions prescribed for banks must be the same as in the case of moneylenders.

DEBT LEGISLATION IN MYSORE

BY

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Introductory.

A debt arises out of credit and necessarily implies the division of society into two classes—debtors and creditors. The same individual, however, may be both a debtor and a creditor. Governments, from very early days, have found it necessary to provide a code of laws to regulate the financial dealings between these two classes. But the nature and scope of such legislation has changed with the changes in the political ideals and the functions of Governments. Debt legislation, for instance, during the post-war years has attempted to ensure a square deal between the debtor and the creditor. The earlier enactments, on the other hand, were intended to create a favourable setting for the financial transaction between the two parties and sought, in addition, to protect the creditor in recovering his debts. This is in keeping with the change from the principles of *Laissez Faire to Socialism.*[1]

It will thus appear that the aims and objects of legislative measures governing debt transactions are varied in kind. Taking this as a basis for the classification of debt legislation in the State of Mysore, the large number of Acts and Regulations[2] along with the rules on this subject may be grouped into three classes.[3] The regulations falling under each of the three groups may be said to possess certain distinguishing characteristics.

I. *Pro-Creditor Legislation*

Laws governing contractual obligations in general—The main intention of the Government in promulgating these measures is to bring the lender and the borrower nearer each other and assure the protection of law

1 "The free play of individual economic interest works out at best imperfectly to the maximum benefit of all." Social Significance of Debt—M. T. Copeland. Chapter XIII. **Explorations in Economics.**

2 Regulations are ordered to be described as Acts under a recent proclamation (1937).

3 This grouping has no chronological significance.

to the creditor in recovering his debts from the defaulting debtor, without however neglecting the lot of the distressed debtors.

II. *Legislation to provide financial aid to debtors*

Regulations and rules intended to provide financial aid to such debtors as are unable to organise themselves for obtaining such aid may be included in this group. The country being agricultural the needs of agricultural credit have loomed large in this group.

III. *Pro-Debtor Legislation*

Legislation falling under this group is more or less recent in origin. This may be described as Debt Relief Legislation. Not content with the meagre relief provided for in the general civil and revenue laws of the land, the Government of Mysore have passed these special enactments with the object of providing relief to heavily indebted persons and reducing the rigour in the execution of decrees against defaulting debtors.

The purpose of the present paper is to review briefly the nature of the measures falling under the first group and examine in some detail the objects and limitations of the measures falling under the two latter groups.

Pro-Creditor Legislation.

The weakening of the medieval forces of tradition and custom necessitated the formation of elaborate codes of civil law for protecting the creditors in recovering their debts from defaulting debtors. A number of acts and regulations have been introduced in British India since 1857 for enabling the creditors to enforce their rights against the debtors. Mysore has modelled its own code of civil laws on those prevailing in British India and the history of the establishment of a hierarchy of civil courts along with the promulgation of an elaborate code of civil laws in the State has kept pace with the movement in the British Indian provinces. It is not necessary to enumerate fully the large number of acts and regulations falling under this group. It is sufficient to remark that Mysore has its elaborate codes of civil law governing contracts, the transfer of property, the registration and stamping of documents besides the Procedure Code laying down in detail the powers and duties of civil courts

in the State. These acts and regulations along with the introduction of the revenue survey and settlement operations and the recent inauguration of a system of Record of rights, have gone a long way in creating a sense of security of rights and property in the creditors and thus mobilising the credit resources of debtors.

Speaking generally of this group of legislative measures it may be said that they sought to protect the rights established under a free contract between the debtor and the creditor. Governments have considered it their duty to uphold the sanctity of freedom of contract between parties.

The Limitation and the Insolvency Acts may be included under this group though they have an appearance of laws intended for protecting certain classes of debtors. It is similarly pertinent to note that the Indian Contract Act and the Civil Procedure Code contained sections that restricted the rights of the creditors in claiming penalties and in obtaining warrants of arrest and attachments of salaries and movables.[4] In spite of the restrictions imposed in these acts, all these measures may be legitimately considered as pro-creditor legislation, as the main purpose of these measures was to afford protection to the creditor class.

Legislation Providing Financial Aid to Debtors.

Under this group are included two different types of measures:

(1) Rules and regulations to provide direct Government financial aid.

(2) Legislation for enabling the formation of co-operative credit societies and land mortgage banks. The farmers that were unable to raise the money they wanted through the ordinary banks needed the aid of the State in organising themselves into a credit union.

Both of them seek to provide easy credit facilities to certain classes of borrowers. The bulk of the population in the State is agricultural. It is, therefore, natural that in these measures the needs of the rural community have been prominent.[5]

4 Section 74 Contract Act; Sections 55 and 60 Civil Procedure Code.

5 As early as 1890 most of the farmers were found to be heavily indebted. They found it difficult to extricate themselves from the grip of the unscrupulous

Under the first subdivision may be included the scheme of loans and advances for land improvement and similar agricultural purposes provided by the Government from time to time. The earliest was the scheme of advances popularly known as *Takavi* Advances. The loans granted in pursuance of these rules were issued first in 1890. These were advanced to agriculturists and for certain specific purposes like construction and repair of wells, purchase of cattle, seed, manure and implements, building houses, etc. Advances of a miscellaneous nature under the budget head 'Loans—Takavi and Agricultural' are being made in accordance with the rules issued from time to time under the Mysore Land Revenue Code.[6] The scope of such agricultural loans and advances has been considerably extended since 1890 by Government notifications issued from time to time.[7] The total outstandings of such loans on 1st July, 1937, was less than Rs. 14,00,000. The amounts advanced to the agriculturists in the State varied from year to year.[8]

The financial aid provided for the benefit of the agriculturists under the above measures has not gained popularity nor has it been adequate. The procedure of applying for and obtaining it is felt to be too cumbrous and dilatory. These loans are not available for all purposes. The inadequacy of the protection afforded to the agriculturist debtors by these rules and notifications is clearly seen by the negligibly small proportion of the outstanding advances on 1st July, 1937, to the total estimate of agricultural indebtedness in the State. The total outstandings of all such loans (Takavi and Agricultural) on 1st July, 1937, was less Rs. 14,00,000, while the total amount of agricultural indeb-

moneylenders. The establishment of the ordinary joint-stock and private banks did not help these farmers and persons with limited means dwelling in towns. They found it difficult to raise the funds they required at different times and there was the pressure of the inherited debt. The Government of Mysore has evinced its keen interest in the welfare of these classes since 1809 by promulgating various measures for providing them easy credit facilities. An accurate survey of rural indebtedness remains to be undertaken.

6 In addition to the rules issued under Sec. 194 of the Land Revenue Code, there are separate Government notifications regulating the issue of other loans and advances like House building advances, Industrial advances, advances for the purchase of machinery, loans for Rural and Cottage industries etc.

7 Land Improvement Loans (old rules) 1890; Takavi Loans (old rules) 1890; Land Improvement Loans (new rules) 1909; Takavi Loans (new rules) 1915; Sericultural Takavi Loans 1916; Fruit Culture Loans 1916.

8 Between 1890—1907, a little over ten lakhs of rupees was advanced, yielding an average of about Rs. 60,000 per year. Since 1916, larger sums have been advanced. Nearly two lakhs of rupees were advanced in 1918—19. The amount advanced in 1936-37 was Rs. 1·76 lakhs.

tedness in the State was Rs. thirty-five crores.[9] This can be further elucidated by a study of the actual figures of indebtedness of agriculturist families classified according to the purposes for which the debts were contracted. Nearly 60 to 70 per cent of the debts of an agriculturist family cannot legitimately be covered by the objects enumerated in any of the above rules or notifications.

Realising the inadequacy of the protection afforded by the above measures and finding that the agriculturists suffered heavily for want of easy credit facilities, the Government of Mysore sanctioned in 1894 the establishment of a few agricultural banks in the State. Special facilities were provided for these banks by the Government. This useful scheme which anticipated in some measure the co-operative system was vitiated by certain defects, principal among them being the extension of its benefits to classes of people for whom it was not adopted and lack of adequate supervision and control over the issue and recovery of the loans. The banks, therefore, did not function satisfactorily. This was sought to be remedied by the adoption in 1905 of the co-operative system which had already been introduced in British India by the Act of 1904.

The Co-operative Societies' Regulation of 1905 in Mysore was replaced by Regulation VI of 1918 which incorporated provisions permitting the formation of central co-operative institutions in addition to the primary societies. The regulation has been amended since then on several occasions. The most important amendment from the point of view of debt legislation was the amendment of 1929, providing for the establishment of co-operative land mortgage banks.[10] Regulation I of 1935 introduced further amendments with reference to the working of the primary land mortgage societies and the central land mortgage bank.

It is more or less accepted now that the progress of rural co-operation in Mysore as in other portions of India has been very slow and that it has not succeeded in achieving its main purpose. The very high expectations of its founders have not been fulfilled. As late as 1934-35 it was found that very many of the villages in the State had not been reached by the co-operative movement. The membership of the rural societies

9 The Mysore Agriculturists' Relief Committee Report (1934—35)—para 22.

10 The Co-operative Central Land Mortgage Bank at Bangalore was registered in 1929 and began its business only in July 1930. Its operations in 1936 extended to 20 taluks and 3 sub-taluks.

stood at 71,951. Assuming that each individual represented a family of five persons on an average, less than four lakhs of people out of a total rural population of 55,12,260 in the State were found to have come within the co-operative fold after a lapse of nearly thirty years.[11] It was recognised that co-operative credit could not afford lasting help to debtors burdened with heavy loads of inherited debt and it should not attempt to take up the work of supplying long-term finance. Hence the amendment of the Regulation for the establishment of land mortgage banks and societies was passed.

The working of the land mortgage bank and its primary societies has shown that the relief which this institution can afford to our agriculturist debtors is also inadequate. Within a period of less than two years of its establishment, it was found that about seventy per cent of the indebted agriculturists in the villages, where these banks were established, remained outside the scope of the land mortgage movement.[11] In 1936 the Co-operative Committee discussed this question at length and found that the assistance that a land mortgage bank could render to the overburdened agriculturist debtor was very limited.[13]

Thus it is clear that the failure to realise the limitations of the scope and usefulness of the various measures at the time of their inception has contributed in some measure to the dissatisfaction expressed about the organisation and working of rural credit institutions. Debt legislation has followed so far, more or less, a method of '*trial and error.*'

A proper appreciation of the limitations of the co-operative solution and the increased severity of the hardship of indebtedness caused by the fall in prices since 1930 led to the formulation of legislative measures described in the beginning of this paper as pro-debtor measures.

Pro-Debtor Legislation.

The measures falling in this group are post-war measures. The pro-debtor measures of legislation are the result of a better

11 Report on Co-operative Societies in Mysore for the year 1933-34—Para 15.

12 Annual Co-operative Conference, 1931, Presidential Address—Page 7.

13 Report of the Committee on Co-operation in Mysore, 1936—Page 143; cf. The Reserve Bank and Agricultural Credits—A. Ramaiya.—Pages 26-27 : "While credit-worthy men may not therefore approach the land mortgage banks, only bad and unpunctual landowners and cultivators will seek help from these banks. And in nine cases out of ten, it is certain that they will default in making repayments . . . . . the result will not be of a very hopeful kind from the point of view of agricultural interests as a whole."

diagnosis of the disease of agricultural indebtedness and a truer insight into the social significance of a debt contract.

Post-war legislation is actuated by a desire on the part of legislators and Governments to ensure fairness in contracts as distinguished from mere freedom in them.[14] The debtor under these acts acquires the right of claiming relief not provided for under the terms of the contract between himself and the creditor. Pro-debtor legislation by the Government of Mysore falls into two broad divisions[15]:—

1. Regulations and Rules applicable to Debtors in General.

This may be subdivided into two groups:—

(*i*) Those that give a right for the debtors in general to claim a modification in the terms of the debt contracts, such as the Usurious Loans Act and the Money Lenders' Bill.

(*ii*) Those that reduce the rigour of execution proceedings against decretal debtors under the Civil Procedure Code, such as the amendments to Sections 55 and 60 of the Code.

2. Regulations and Rules applicable to Agriculturist debtors in particular.

Agriculturists of the poor and middle classes have come in for consideration at the hands of the legislature which has undertaken to afford them relief by measures like the Agriculturists' Relief Act and the Debt Conciliation Boards Act.

1. (i) Debtors in General—Modification in the terms of Contract.

The Usurious Loans Regulation in Mysore[16] gives powers to the courts to deal with usury. Whenever the court has reason to believe that the rate of interest is excessive and that the transac-

14 The justification for this change is seen in the findings of the Royal Commission on Agriculture, Royal Commission on Labour, the Central and Provincial Banking Enquiry Committees and the Mysore Agriculturists' Relief Committee.

15 The Rule of Damdupat is excluded from this study. It applies only to Hindu debtors and it is in force in Mysore.

16 Regulation No. IX of 1923.

tion is, as between the parties, substantially unfair the court is empowered to reopen the transaction and relieve the debtor of all liability in respect of excessive interest. Whether the interest is excessive or not is to be decided by the judge independently in each case on the merits and circumstances relating to the transactions under dispute. But usurious rates of interest prevail in spite of the Regulation. This is largely the result of certain defects in the measure which has been summed up in the following words[17]:—

> "In Mysore as in British India little use is being made of the Usurious Loans Regulation, either because the attention of the Courts is not invited to its provisions or because the parties do not seek relief specifically under it. The regulation is found to be defective in that it places on the debtor the burden of proving that the rate of interest charged is excessive and that the transaction is unfair; the scrutiny of transactions and the disallowing of usurious interest is left to the discretion of the Court instead of being made imperative; and what constitutes excessive interest is not defined. Action has to be taken to remedy these defects, as has already been done elsewhere; and also to make the provisions of the Regulation more widely known among the classes affected."

These defects are likely to be remedied by the Moneylenders' Bill[18] which is to be placed before the Legislative Council of the State. The general principles of the bill received the unanimous assent of the Mysore Representative Assembly held in September 1938. The bill is intended to control the business of moneylending in the interest of many ignorant and illiterate debtors. In this bill it is proposed

(1) to fix a reasonable rate of interest that may be allowed by the court;

(2) to make provision for the safe and satisfactory conduct of the business of moneylending by

17 Report of the Committee on Co-operation in Mysore, 1936—Page 149.

18 cf. The Punjab Regulation of Accounts Act, 1930, and the Madras Debtors Protection Act, 1934. Regarding registration and licensing of money-lenders, the Provincial Banking Enquiry Committees held different views. The Central provinces and the Bengal Committees were in favour of compulsory registration. The Madras, Bihar and Orissa Committees, on the other hand, recommended only optional registration. The Punjab, Bombay and Assam Committees did not support the proposal.

insisting on the proper maintenance of accounts so as to afford opportunities to the debtors to ascertain the state of accounts periodically; and

(3) to make provision for the regulation and licensing of moneylenders. The penalties proposed to be imposed on offenders for non-compliance with the provisions of the bill are said to be made intentionally light and reasonable so that the bill may not unnecessarily harass the moneylenders.

Several benefits are expected from a measure of this kind. It may enable the debtor to get the benefit of the Usurious Loans Regulation by requiring the creditors to keep regular accounts. The receipt of periodical statements by the debtors may serve to remind them of their pecuniary position and this may act as a salutary check against the dishonest moneylender indulging in improper practices. The intention of this piece of legislation is not to drive out the indigenous moneylender but to reorganise the business of moneylending.

1. (ii) Debtors in General—Relief in Execution Proceedings.

The claims of non-agriculturist debtors for relief has not received in Mysore as extensive a consideration as those of agriculturist debtors. The Royal Commission on Labour, however, pointed out the need for liberalising debt legislation in favour of the detor classes among industrial labourers so as to secure specific protection for the simple and the ignorant. Enhancement of the limit of civil court attachment and freedom from civil arrest were considered necessary relief measures. The ordinary protection afforded by the sections of the Indian Contract Act and the Civil Procedure Code was considered to be inadequate. The relief from the liability to pay enhanced interest provided for under Section 74 of the Contract Act was made more specific in the Usurious Loans Regulation and it is now intended to improve this further by enacting a regulation for controlling the business of the moneylender. Side by side with these new enactments the Government amended Sections 55 and 60 of the Civil Procedure Code[19] in accordance with the spirit of the recommendations of the Royal Commission on Labour.

19 Section 55 relates to arrest and detention of debtors; Section 60 to orders of attachment. The amendments were introduced in 1937-38.

As a result of these amendments, the rigour of execution proceedings against decretal debtors has been considerably reduced. Under the amendment to Section 55 a defaulting debtor cannot be forced into a civil jail unless the creditor proves to the satisfaction of the court that the debtor has the *means to pay*. A threat of arrest will not result, therefore, in a forced sale of the properties of a debtor in difficulty. According to the amendment to Section 60, the first fifty rupees of the salary of servants employed by Government, railways, local bodies as well as *industrial concerns* and one-half of the remainder of their salary are protected from civil court attachment.[20]

2. Agriculturist Debtors.

Turning to a consideration of legislation intended to afford relief to agriculturist debtors, two important measures have been so far placed on the statute book in Mysore. They are:—

(*i*) The Agriculturists' Relief Act (1928)[21].

(*ii*) The Debt Conciliation Boards Act (1937).

Relief under the Agriculturists' Relief Act is afforded to the middle and poor classes of agriculturists, *i.e.*, to persons who ordinarily engage themselves in agriculture and whose income does not exceed Rs. 1000 per annum. This enactment gives a number of privileges to the agriculturist debtors and the important ones are noted below:—

1. The immovable property of an agriculturist, unless specifically mortgaged for a debt is exempt from attachment and sale under the Regulation.
2. The agriculturist debtor has secured exemption from imprisonment in execution of a decree for payment of money.

20 Before the amendment, the whole class of labourers and domestic servants were exempted from the operation of the section. The salary of a Government servant or of a local body or of a Railway company was declared exempt from Civil Court attachment if it was Rs. 20 or less, where the salary was Rs. 40 a sum of Rs. 20 was exempt and a moiety of salary in other cases.

21 The Regulation follows practically the Bombay Act. But it differs fundamentally from the later Madras Act. The Madras Agriculturists' Relief Act (IV of 1938) based on the principle of compulsion, is essentially a debt relief measure unlike the Mysore Regulation or other provincial acts. The objects of the Madras Act are thus stated :—" The object of the Act is to give relief to indebted agriculturists. This object is attained by 1. scaling down their existing debts, 2. reducing the rates of interest on their future debts and 3. writing off the arrears of rent due to Zamindars, Janmis and other land-holders."

3. Liberal instalments for the payment of secured and unsecured debts are allowed under the Regulation. At the discretion of the court, the instalments may extend usually to eight years and in some cases even to longer periods.

4. When the amount claimed by the creditor is disputed, the court is empowered to take an account from the commencement of the transaction and to re-open any agreement entered into in the interval purporting to close all previous accounts.

The measure came in for hostile criticism by certain sections of the public in Mysore who pointed out that it would adversely affect the honest moneylenders' rights. A Committee was constituted by the Government of Mysore in 1934 to examine the nature of the hardships caused by this measure. In accordance with the recommendations of the Committee, the Regulation was subsequently amended in certain respects mainly with a view to prevent fraudulent alienations of lands by unscrupulous agriculturist debtors.

The Committee further recommended the introduction of a scheme of debt conciliation measures on the lines of those prevailing in the Central Provinces. This recommendation was repeated by the Co-operative Committee who submitted their report in July 1936.

The latest addition to the list of pro-debtor measures is the Debt Conciliation Boards Act.[22] This seeks to afford relief from indebtedness to agriculturists by reducing the burden of the debt, through a process of amicable settlement between the debtor and his creditor or creditors. Like the Central Provinces Act, the scheme of conciliation is largely voluntary. The Regulation is confined to agriculturists whose debts exceed Rs. 100. The help of the land mortgage bank is sought to be utilised for helping the debtor in paying off the conciliated debt. Thus the provisions relating to the payment of the compounded debt actually exclude those debtors that do not possess adequate assets to cover their debts, from getting the benefits of the Regulation.

22 The Regulation (November 1937) is based on the Debt Conciliation Act, Central Provinces (1933) and Madras (1936). The provisions of the Regulation differ from the provisions of Compulsory scaling down introduced in the Madras Agriculturists' Relief Act of 1938. They differ from the Bhavanagar Scheme in that the latter provides for a scheme of debt redemption by the Government of the State directly.

Debt Conciliation Boards have been constituted during the current year in two taluks, as an experimental measure, for a period of 2 years. It is too early, therefore, to judge the results of the scheme. Still the experience already gathered about the working of similar acts in other parts of India suggests a few comments on the adequacy of the existing provisions of the Regulation.[23]

Debt Conciliation and Redemption.

It is now accepted that an effective scaling down of indebtedness must be accomplished to save the debtor from economic ruin and that the necessary Government interference with the private rights of the creditor class can be justified in so far as it tends to maximise social welfare. The crux of such debt conciliation arrangement, however, lies in the provision of an effective mode of redemption of the compounded debt.

The Mysore Agriculturists' Relief Committee of 1934 discussed the direct and indirect methods of assistance that may be provided by Government for repayment of conciliated debt and expressed their views as follows[24] :—

> "The payment of the debt by the State in cash or bonds is the more simple and efficacious method but practical considerations and the amount involved preclude any attempt at its adoption in our State.
>
> The appropriate agencies in our view for paying off the liquidated debts, or at any rate a portion thereof, are the co-operative societies or the land mortgage banks according to the length of the term over which recovery has to be spread."

The chances of success of debt conciliation legislation appear *prima facie* to be good when a Debt Conciliation Board is established with powers to scale down the size of debts and when a land mortgage bank is forthcoming to accommodate the debtor with cash to the extent of the diminished debt. The

23 The comments relate to the need for an effective agency for conciliation and the mode of paying off the conciliated debt. The next stage in debt legislation is likely to concern itself with measures for strengthening the agency for redemption of the conciliated debt and the substitution of compulsory scaling down in place of voluntary conciliation. In the meantime it will be an advantage if the related provisions of law for the relief of indebtedness, now contained in several different enactments, are consolidated.

24 Report of the Mysore Agriculturists' Relief Committee, p. 14.

extent of the assistance that a land mortgage bank can render by way of financial accommodation is extremely limited. Further a large percentage of debtors may not possess sufficient assets to act as an adequate cover for their debts.

The study of land mortgage financing in the State indicates that the funds of the Central Land Mortgage Bank comprise mostly of share subscriptions, deposits and debentures. Apart from share capital of Rs. 5 lakhs, the land mortgage bank has to raise the funds it may require for paying off the conciliated debts largely by means of long-period debentures. Money can thus be raised only when the issues are guaranteed by Government. A direct floatation of loans for this purpose by the Government will, in the first instance, reduce the cost of debt service by minimising the expenses on intermediate agencies. The loan bonds to the extent of the conciliated debt may be issued in exchange for the mortgage deeds and promissory notes owned by the creditors. Secondly, the delay resulting from the time required for the formation of primary land mortgage societies in the various portions of the State can be avoided and thus a more rapid scaling down of debts may be possible. Greater conveniences for repayment and greater ease in the collection of the equated instalments along with the land revenue collections are additional advantages offered by this mode of redemption.

The usefulness of the debt conciliation board regulation as a measure for relieving indebtedness can be further enhanced and perhaps extended by incorporating measures for helping those debtors that do not possess adequate assets to act as a satisfactory cover for raising a loan to pay off the conciliated debts. Such help can be rendered by introducing a Conciliated Debtors' Compulsory Insurance Scheme.[25] The debts have to be scaled down with reference to the repaying capacity of the debtor and the compounded debt is to be paid by the Government to the creditors in cash or in bonds. The debtor may take an insurance policy in the Public Branch of Insurance, a department of the Government of Mysore. The amount of the policy taken is to correspond with the amount of the reduced debt. The amount advanced by the Government may be recovered periodically by way of premia paid by the borrowers.

In the case of those whose debts cannot be reduced by agreement and brought down within their repaying capacity and

25 Reference may be made to the practice of insisting on the debtors taking an insurance policy at least up to one-third of the value of the loan sanctioned by the land mortgage banks.

when their assets are insufficient to cover the debt, the application made by a debtor before a Debt Conciliation Board may be treated as an application preferred before a court having insolvency jurisdiction.[26] This will meet the recommendations of the Royal Commission on Agriculture and the Banking Enquiry Committee regarding the need for a simple rural insolvency act.

Summary and Conclusion.

Debt legislation is not an end in itself. It is merely a means to an end. The object of debt legislation like all other forms of social legislation is to enable the people of the State to live a fuller life by creating for them a favourable environment and to prevent the economic waste that may result from the use of borrowed funds by distressed debtors. Poverty, lack of education, low standard of living and the burden of indebtedness are all inter-related. It would not do to remain content with merely relieving indebtedness by a more or less efficient code of legislative measures. To be really fruitful a scheme of debt legislation must advance *pari passu* with the measures for increasing the earning and the repaying capacity of the debtors and for preventing the debtor from further unproductive borrowing. The pursuit of a reconstruction and development programme somewhat in the following sequence of steps—Debt Redemption Legislation, Education and Social Reform Propaganda, Financial Aid, Co-operative and Land Mortgage Banking Institutions, Planned Agricultural Policy, Rural Reconstruction Schemes—is likely to yield beneficial results.

[26] The addition of these clauses necessitates the modification of the rules governing the constitution and the personnel of the Debt Conciliation Boards.

DEBT LEGISLATION AND RURAL CREDIT IN MADRAS

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Madras lagged behind the northern provinces in debt-relief legislation in spite of insistent demand. The Statute Book was adorned with a mild Debtors' Protection Act (1934) excluding from its provisions loans of over Rs. 500 and non-professional moneylenders and a Debt Conciliation Act (1936), modelled on that of the Central Provinces, but not given serious effect to. The present Ministry has more than made up for the delay in getting through early this year a piece of legislation which may be called more radical or drastic than any that has been passed or is contemplated in the rest of India. It is indeed difficult to find parallels for some of the provisions in foreign debt legislation.

I. The Agriculturists' Relief Act and its Working.

The Madras Agriculturists' Relief Act is unique, in India at any rate, in several respects. It provides for the compulsory scaling down of debts as distinguished from conciliation and settlement by agreement attempted elsewhere. It offers relief to all ryots without any upper limit, irrespective of their capacity to repay and of the status of the creditor. But it excludes from relief agriculturists paying any income-tax or a profession or property tax in a municipal area. It does not go to the aid of the landless labourer nor of any but the small zamindars and janmis. In fact it hits the bigger among the latter by wiping off old arrears of rent from their tenants. The Government have not been prepared to write off any portion of their land revenue or loan arrears which is in striking contrast to the very subordinate place given by some countries to rates and taxes in the 'Schedule of Preferences' according to which the proceeds of farms of debtors, brought under supervision or management of Boards of Farm Relief, were to be distributed. All arrears of interest or debts incurred prior to 1932 are wiped off, and the debts incurred after 1932 are to be charged only 5 per cent interest up to 1st October, 1937. All payments made either by way of interest or of principal are to be given credit, and if they

amount to twice the principal the debt is deemed to be discharged; if less than twice, only the balance has to be paid to get a discharge. Apart from the reopening of accounts which this involves, it is a novel interpretation of the old Hindu law of *damdupat*, not in force in all parts of the Presidency. Scaling down of interest, and of principal to a lesser extent, may be found in all debt legislation, but not the practical cancellation of debts. The maximum legal rate of interest has been fixed at $6\frac{1}{4}$ per cent for future debts; but it is alterable by the Government. Co-operative societies and certain classes of banks have been exempted from the operations of the Act unlike in the Debt Conciliation Act. No satisfactory provision has been made for setting up a machinery with legal powers and financial resources to satisfy the claims of creditors or relieve the debtors quickly, to pay off the scaled down debts to the former and recover them gradually from the latter. Doubts were entertained of the beneficent working of this Act and fears were expressed of its repercussions on rural credit.

The Government of Madras recently issued a press communique with bare figures on 'the working of the Act and the nature and extent of the relief obtained by debtors' in the half year ending with August 1938. More than 36,000 cases have been disposed of involving Rs. 76 lakhs of debts which have been scaled down to Rs. 40 lakhs, *i.e.*, by 47 per cent. But 7000 of these cases involving Rs. 46 lakhs were applications by judgment-debtors for the amendment of decrees passed by courts already, and there were 18,700 applications for the stay of execution-proceedings. But while cases of spectacular scaling down of claims by courts are reported in the newspapers, we get hardly any idea of the relief afforded to numerous deserving debtors. It must be a serious lacuna in the law if, as has been stated, the Agriculturists' Relief Act does not enable a debtor to go to court and file an application for the settlement of his debts as he can do before the Debt Conciliation Board in Madras. At any rate, it is easier for creditors to harass the debtors who have not the means to go to court, while if any debtor resorts to the Debt Conciliation Board, the creditors of more than 50 per cent of the amounts due may withhold their consent and thwart any agreement that may be effected by the Board which can only use methods of persuasion. The Boards must be vested with the powers of courts, that is to say, they must be made special tribunals for the administration of the Agriculturists' Relief Act. Even before this Act was passed special officers had been appointed by the previous Government to administer loans accord-

ing to the Agriculturists' Loans Act amended in 1935. They had been empowered to scale down debts with the consent of creditors and they were able to scale down by as much as 33%, and in two years they granted Rs. 50 lakhs to pay off such scaled down debts. These officers have now been empowered to continue scaling down with the consent of creditors, we suppose on the scale prescribed by the Relief Act, and they are to disburse within one year Rs. 50 lakhs to pay off the scaled down debts. This is the only financial contribution made by the Government and there is no sacrifice in it as the loans fetch an interest of $6\frac{1}{4}$ per cent, the maximum prescribed by the recent Act, which must leave an ample margin for administrative charges. Nor is there any risk involved as the security demanded is $2\frac{1}{2}$ times the value of the loan and instalments are recoverable by summary procedure.

II. Repercussions of the Act on Rural Credit.*

The fears expressed of the restriction of rural credit and of the possible evasions of the provisions of the Act relating to the rate of interest have materialised. A staunch supporter of the Act, a very eminent co-operator, wrote in September last: "The position in regard to rural credit has undergone a marked change since the passing of the Act. The obtaining of credit has become considerably more difficult to the agriculturist. It is argued in some quarters that curtailment of credit is not an evil, for it will prevent improvident and unproductive borrowing. It is a half truth. It is not merely superfluous credit that is cut out, but also necessary credit. It is overlooked that starving the agriculturist in regard to productive credit . . . is far more prejudicial to our rural economy than some improvident borrowing by a few people."

Men of means, not only professional moneylenders, do not lend as freely as before even to solvent agriculturists. Fear of further legislation on moneylending and of the reduction of rates with retrospective effect, whatever be the assurances given to the contrary, is but one factor, though it is the most important. On the other hand, the conflicting decisions in different courts in the Presidency and the big appeal now being heard in the High Court of Madras on the constitutional right of a Provincial Legislature to enact the measure have engendered a hope in the

1 An analysis of the answers given by several Co-operative Banks to a questionnaire issued by the Madras Provincial Co-operative Union and published in the *Madras Journal of Co-operation*, December 1938.

minds of moneyed men that the Act may go and till then they will not lend. Sowcars are said to be ' recovering dues and keeping them safe.' The failure of the Travancore National Bank and some other banks added to the scare, and to some extent diverted savings into the purchase of land and houses. But here again fear of tenancy legislation on radical lines checks the tendency to invest in lands. Some of the prosperous joint-stock banks and the well-established co-operative banks, Provincial, Central and Urban, have attracted deposits even from villages at low rates of interest. There is indeed a glut of money and the problem is to find safe outlets.

But it is not as though private moneylending has vanished from the village, which is a consummation devoutly wished for by co-operators. Ingenious devices have been adopted by lenders to defeat or circumvent the provisions of the Agriculturists' Relief Act. Loans on the security of land can still be had at $6\frac{1}{4}$ per cent for the rich; the rates had come down so low already and the Act did not hit such investors, except with regard to old debts. In order, however, to escape the effects of retrospective regulation of rates, creditors get deeds of sales of land for moneys lent but promise to reconvey the land to the borrowers at the old price on payment of interest stipulated. Meanwhile they are supposed to be tenants, paying rents to the fictitious landlords. This is a custom common among sowcars in the North, but it has now invaded the South. Money is also lent on mortgage with possession, and interest is secured in kind, as usufructuary mortgages are not brought within the scope of the Act. Money is lent on gold with or without documents; if former, the higher rate of interest demanded is deducted from the principal in advance. If the jewel pledged is not redeemed within a definite period or a fresh deed is not executed, the jewel is auctioned. Rates of interest range from 9 to 18 per cent due to the short duration of loans.

It is on unsecured loans that the greatest ingenuity has been exercised: the borrower is an accomplice. Shotr-term loans are given on pronotes for one or two years; the interest agreed to orally is taken in advance for the stipulated period. In districts with precarious crops, interest for three years at the rate of 12 per cent per year is deducted from the principal which is entered in full in the pronote, though the actual amount received is only 64 per cent; the legal rate of $6\frac{1}{4}$ per cent is of course found on the pronote. But "moral usury" (which is according to Jeremy Bentham, exacting a rate higher than what is usual for men to give and take) more often governs transactions. The new

rate has to cover possible overhead expenses and the high risk of loss. All efforts are made to suppress prior transactions and in Salem moneylenders are said to 'have already persuaded debtors to execute fresh pronotes for principal and interest at the old rate compounded without reference to original documents.' In many municipal areas where agriculture is pursued on the outskirts, if the debtor is an agriculturist, he is made to pay higher tax and made a non-agriculturist and brought outside the pale of the Act. Payment of interest in kind is stipulated for, a practice very agreeable to merchant-*cum*-moneylenders. In short ryots are said to have lost credit with decent moneylenders; in popular parlance *marwadism* is rampant in rural as well as urban areas.

We are led on to think whether in all this legislation against usury or even regulation of moneylending history is not repeating itself. Usury is by no means confined to India; it is found in some form or other and in an acute form in areas occupied by low-paid industrial labourers and small peasant proprietors. It was not long ago that it was rampant in western and central European countries, where it has been subdued by co-operative credit societies; and even now it is largely prevalent in eastern European countries; which have taken the lead in debt legislation, and co-operation has not yet taken firm root. "The radical measures adopted in some of these countries have had results contrary to what was hoped from them as they made it impossible for financial institutions to meet their obligations."

Granting the need for some sort of social control of exploitation by the moneylenders, it is wise to fix the rate in accordance with the real credit situation in the particular conditions of the country. This maxim was no doubt recognised and hence the Government have retained the power, but can it be said that it has been acted upon, when $6\frac{1}{4}$ per cent is prescribed as the maximum for all kinds of loans, secured and unsecured, and for people in various degrees of distress or prosperity? In no other province in India, which has attempted or is contemplating debt legislation, has the rate been fixed so low or the distinction between secured and unsecured debts obliterated. We trust that as was promised the rates will be revised to reflect the credit situation of solvent debtors.

III. Co-operative Credit in the Scheme.

The Government of Madras have abundant faith in the Co-operative Movement as the best agency to supply rural credit. In placing co-operative societies in a privileged position, the Premier pleaded for them in the Legislature in a way that no co-

operator could have done. He stated that "it would be unfair and suicidal" to excuse agriculturists from paying their dues to societies; that the co-operative credit system was not less important than the functioning of Government; that co-operatives were, on principle at least, borrowing from among members, that is, from a group of agriculturists, and therefore it would be impossible to treat them as an outside body. This must have come as an agreeable surprise to co-operators, as it had become the fashion to decry co-operation even as an ideal for some years past. This attitude of Government has been more than once reiterated in recent months.

The leaders as well as the Department of Co-operation in Madras have seized the opportunity and are full of ideas of rehabilitation of the Movement. There can be no two opinions on the need to revive and develop co-operative societies of various types as in all agriculturally advanced countries. But it would be interesting to know the position and attitude of co-operative societies in schemes of debt legislation elsewhere.

There was little choice in European countries. Co-operative Societies have had to bear the burden like the rest of the creditors. But they are borrowers also and they resented their enforced inability to meet their obligations to depositors. State intervention as a principle was very unwelcome to co-operators even while they recognised it as unavoidable. The State as an investor in agriculture, by virtue of its guaranteeing or paying off debtors, has been led on to take a deeper interest in the prosperity of the business and has therefore assumed functions of control of production, processing, export and import, which are anathema to co-operators, who have therefore resisted the introduction of the thin end of the wedge. Well-developed old societies in Europe have had little losses, while in the South and East of Europe the slowly built savings have been swept off, leaving a lot of discontent.

In India likewise there have not been wanting co-operators who have looked askance at the idea of debt legislation touching the carefully built reserve funds, etc. On the general effect of debt legislation on rural credit, the views of Registrars of Co-operative Societies in other provinces, where debt conciliation schemes have been put into force, are not quite so rosy. The Punjab Registrar complained that the effect was to deter money-lenders from advancing on lands and to stiffen the debtor's resistance to his creditors' demands, even when the latter is a co-operative society and in spite of ability to pay. "To evade payment was a social degradation; now it is a matter of pride.

This attitude is not yet widespread but it exists. There is an increased demand for co-operative credit. In this lies both an opportunity and a danger. It is an opportunity for cautious expansion." The Registrar of Central Provinces, where the greatest amount of work has been done by way of debt settlement, points out, "one of the reasons for the low recovery in recent years has been the working of debt conciliation boards—the establishment of which was everywhere the signal for withholding payments by debtors."

It is often forgotten that a co-operative society is as much a borrower as a lender, that it has obligations to meet to depositors; that some of the good societies, especially in semi-urban areas, have paid all interest up to date to their financing banks from out of their collections of instalments of principal from the members, though some others have defaulted in payment of interest as well as principal. An indiscriminate application of some of the provisions of the Relief Act would simply lead to the liquidation of the financially sound societies, some of whose members might for the time being be defaulters. There are, however, valid reasons for inclusion of co-operative societies also among creditors. Special treatment to societies might mean more bad blood between them and the moneylenders, while already there is little love lost between them. The bad debts of societies—some of them advanced recklessly in the past—must some time be written off, and it is better done at a time of general scheme of relief, with which depositors might better put up. From the point of view of the debtor too, it is desirable to deal with his entire debt. A *via media* was struck in the Debt Conciliation Scheme of Central Provinces, and copied in the Madras Conciliation Act of 1936, by which the debts due to co-operative societies could be dealt with, but only with the permission of the Registrar of Co-operative Societies, who would, of cuorse, give it only in the case of societies with sufficient owned resources. The Madras Government have in the Agriculturists' Relief Act spared the Registrar this unwelcome duty and appeal to the central banks and credit societies that can afford it to try and fall in line with the measures taken by Government for the relief of the indebted agriculturist. In their view, the financial condition of several central banks in the Presidency seems to justify sacrifices on their part. It must be said to the credit of the central banks in Madras, which are the backbone of the co-operative credit structure, that they are able to attract money at very low rates of interest and lend to societies at rates varying from 4 to 5½ per cent, while most societies on their part are

lending at $6\frac{1}{4}$ per cent to members—which is the lowest rate prevailing in the Movement in India. On the appeal of the Registar, many banks have enabled societies to do away with penal rates of interest when the economic depression led to default. The Provincial Co-operative Bank at Madras is now able to offer money to central banks at $3\frac{1}{2}$ per cent so that the ultimate borrowers in primary societies may not be charged more than $6\frac{1}{4}$ per cent. A few crores of rupees, the apex Bank is prepared to place at the disposal of central banks and marketing societies for short-term productive purposes. More deposits are bound to flow in from the investing public, provided repayment of loans is ensured by the co-operative organisations in the country.

Here indeed is the rub: the repaying capacity of a large majority of members of primary credit societies has been reduced to a very low level. Many societies are left with more or less insolvent members, the better-off having quitted societies especially after unlimited liability was enforced in certain areas, and land mortgage banks and loan and sale societies based on limited liability began to attract them. Of the 11,500 societies, only 25 per cent can be said to be working at all, and 10 per cent working well. The total outstanding loans in all societies are a little less than Rs. 5 crores only, of which a large part is frozen. Fresh loans advanced for the whole year throughout the Province went down to Rs. 90 lakhs in 1933-34, but are gradually and continuously been expanding since then and might reach Rs. 2 crores in the current year. It is part of this expansion that we are now witnessing in co-operative societies, though the Agriculturists' Relief Act has undoubtedly given a fillip to it. Having long pursued a policy of rectification and consolidation, the Department of Co-operation has now definitely launched on a policy of encouraging the formation of new societies with a wider jurisdiction and on the basis of limited liability, which experience of unlimited liability has rendered more attractive. These societies can take up functions other than credit, particularly supply of agricultural requirements with much greater chances of success, as they are likely to have a much large number of members, including substantial agriculturists, who had been scared away by unlimited liability. We can only hope that with the generous offer of Rs. 5 crores by the Madras Provincial Co-operative Bank it will be possible to revive and strengthen a number of societies that will actively function and lead to a still further expansion so as to serve the entire countryside.

The land mortgage banks of Madras of which there are a hundred now in the Province, with the Central Land Mortgage Bank at the top to finance them by means of debentures, have had a better start and greater support from the public and the Government than similar institutions in North India. Though less than a decade old, long-term loans have been granted to the extent of Rs. 1·75 crores at less than 5 per cent to agriculturists. Another half a crore may be given in the course of this year and the Government have been pleased to increase their guarantee of debentures by Rs. 50 lakhs for the present, and have taken power to do so by another Rs. 50 lakhs, when necessary. The debentures are so highly valued that they can be floated at 3 per cent. These land mortgage banks are expected to play a special part in helping the clearance of prior debts scaled down by the application of the Act, though there is no provision to compel creditors to receive payments, as the Central Land Mortgage Bank complains. If Rs. 10 crores were available, as it should be, to the land mortgage banks, it would be possile to help almost all the smaller agriculturists with scaled down debts of less than Rs. 1,000 each, to clear off the prior debts and start on a clean slate, while for the future they must be linked up with village credit and loan and sale societies in a scheme of 'controlled credit.'

The richer ryots might be left to take care of themselves. The impecunious and the improvident among the smaller ones cannot be redeemed by legislation or other forms of State-aid. Nothing short of a missionary agency with individual personal contact can alleviate their misery. As for the rest, emergency legislation may do some good but not without being reinforced by a well-conducted co-operative organisation. The world has not known a better solution for the economic ills of the agriculturist.

DEBT LEGISLATION IN THE PUNJAB
(History and Recent Developments)

BY

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In no country of the world has the small holder been able to dispense with the necessity to borrow. But the distinguishing feature of rural indebtedness in India is that for the most part it has been borrowed for unproductive purposes, while the borrowings of the peasant in other countries of the world have generally been actuated by the increase in efficiency of production which it largely brought about. The productive debt creates means for its repayment while in the case of the unproductive debt such means are conspicuous by their absence. Therefore need has been felt for the regulation of the facilities to borrow by legislation from time to time. In recent years the aggravation of the problem of indebtedness due to the depression has resulted in the enactment of various laws in different provinces of the country.

The Extent of Debt.

The amount of debt has been increasing steadily since the establishment of security under the Pax-Brittanica; particularly so during the period of the rise of prices that coincided with the beginning of this century and continued up to 1929. Up till this date, although the peasant was more involved than in earlier years, yet the burden was not as heavy owing to the rise in the prices of agricultural produce. Since the onset of the depression, although the amount of debt has not increased, the problem has assumed formidable dimensions, because the burden has increased by about 100 per cent—owing to almost 50 per cent fall in prices and the consequent inability of the peasant to make any large repayments of the loans outstanding.

Before 1921 no serious attempt had been made to study the extent of the rural debt of the Punjab, although certain minor enquiries relating to indebtedness and family budgets had been

conducted in various parts of the Province. The annual reports on co-operation had also contributed some information of value. Mr. Darling estimated the total agricultural debt of the Punjab in 1921 at 90 crores of rupees; and held that 83 per cent of proprietors were involved in debt. On the basis of the Punjab figure, Mr. Darling estimated that the total agricultural debt of India was in the same year " not less than 600 crores." The Punjab Banking Enquiry Committee's estimate for the total agricultural debt of the Province in 1929 was Rs. 135 crores; and in 1930, the Chairman of the Committee (Mr. Darling) estimated the same to have risen to Rs. 140 crores. Sir Chhotu Ram estimated the total amount of Punjab agricultural debt at Rs. 200 crores in 1936, and held that 90 per cent of the proprietors were in debt. Mr. Darling's estimate of agricultural indebtedness in 1937 is Rs. 140 crores, but on the whole he thinks it is not very much more than the figure of 1931, *i.e.*, Rs. 135 crores. At present, Mr C. P. K. Fazal (Assistant Secretary, Board of Economic Inquiry) has estimated the total amount of the rural debt at Rs. 136 crores. According to this the incidence per head of the agricultural population is Rs. 78-9-3.

Legislation up to 1900.

The first of the enactments dealing with indebtedness—apart from the direct provision of agricultural finance by the Government under the Taccavi Acts of 1871 and 1876—was the *Deccan Agriculturists' Relief Act, 1879*. It was passed on the recommendations of the Deccan Riots Commission which was appointed to enquire into the riots in certain districts of the Deccan. The Act applied to four districts only, and its main aim was to better the relations between the moneylender and the ryot. Later inquiries have brought to light that it failed in its objects and was amended several times, and its provisions according to the Royal Commission on Agriculture were evaded.

The Agriculturists' Loans Act, 1884, and the *Land Improvement Loans Act, 1883*, were the first to render effective help to the agriculturists in the form of Government finance of agricultural credit. The *Agriculturists Loans Act* aimed at the provision of short-term credit, but various factors contributed to the unpopularity of the advances under the Act, *e.g.*, the delay in securing advances, the rigidity of repayments and the petty exactions of the subordinate officials. The Punjab Banking Enquiry Committee has admitted that " nearly all our evidence points to the unpopularity of taccavi as a system of finance." The *Land*

Improvement Loans Act, was meant to provide long-term credit, and largely owing to the ignorance of the peasantry regarding the existence of the Act, as also owing to other reasons referred to in the csae of the *Agriculturists' Loans Act,* not much use was made of it.

These Acts were not very effective in securing the aims they embodied, because of the rise in prices that had begun in 1873 and continued uninterruptedly until the beginning of the Great War. The farmer could generally get as much accommodation at the hands of the moneylender (owing to his inflating credit) as he desired—consequently the Government did not feel any necessity for an effective and regular system of Government advances. Even if the circumstances were different, Government could not have made advances to the agriculturist for unproductive purposes and to fill this gap, he naturally would have been driven to the moneylender; the resultant effect being that he would have all his relations with the moneylender alone, even if at some financial disadvantage.

From 1900 to 1930.

The increasing transfers of land that were being effected in the last quarter of the last century from the agriculturists to the moneylenders and other non-agriculturists, due to the financial domination of the latter over the former, created a special problem in the Punjab—the land of martial classes. It was felt that the creation of landless proletariat might shake the foundations of the society. *The Punjab Land Alienation Act, 1901,* therefore, provided for the restriction of the transfers of land from the agriculturist to the non-agriculturist tribes—to which the moneylenders had hitherto generally belonged—except with the sanction of the Deputy Commissioner. The maximum period for which the mortgage could be effected was fixed at twenty years. The Act has been effective in preventing the sale of land by the agriculturist to the non-agriculturist tribes as such; but it helped the growth of the agriculturist moneylender who has been a greater menace to the peasant proprietor than the non-agriculturist moneylender; and, as the Punjab Banking Enquiry Committee pointed out, he "is more of an obstacle to the spread of co-operation than the ordinary moneylender." Neither could the Act save the small holder from being bought off by the big landlord. The restrictions placed on the transfer of land under the Act have also been an impediment to the development of agriculture on a commercial basis, as the town classes

have not found it possible to invest capital in the most important, though very backward, industry of the Province.

The next important legislative measure was the *Co-operative Credit Societies Act, 1904* (amended in 1912). The objective of the Act was the cheap provision of agricultural credit and the education of the peasant with the ultimate purpose of supplanting the moneylenders' system, that had held the country in its grip, by the infusion of co-operation in all aspects of the peasant's life. The formation of Co-operative Credit Societies that followed the passing of the Act was taken in hand with vigour under the auspices of the Departments of Agriculture in the Provinces. Later on separate Co-operative Departments were established. Since then, until the beginning of the depression, the quantitative expansion seemed to figure out as a conspicuous achievement of the Co-operative principle. The impact of depression on the Co-operative movement revealed the fact that the movement was imposed from above and did not grow from within; hence its inherent weakness as it developed in this country. It flourished in the fair weather, but was unable to withstand the strain of a precipitous fall in agricultural prices, which shook the foundations of the agricultural economy.

Admittedly the Punjab and Bombay have led the whole of India in the progress of co-operation. But even in these Provinces the movement was not as strong as it should have been after 25 years if conducted on proper lines.

The Punjab Banking Enquiry Committee estimated the agricultural financial needs of the Province at between 52 and 65 crores of rupees, and found that the Co-operative Societies provided "only a small fraction of it." In Bombay, according to the Banking Enquiry Committee, the Co-operative Societies provide but 7 per cent of the total finance required by the agriculturist. The cultivator, where he is a member, still obtains a part of his finance from the society and the rest from the moneylender. The essence of a co-operative society is that members should learn to manage their own affairs—it is here that the movement has failed.

Statistics relating to the year 1932-33 reveal that ignoring Coorg, the Punjab leads, whether one considers the number of societies or the number of members or working capital per head of the population. But even in the Punjab in 1932-33, the proportion of the population affected by the co-operative movement was inappreciable, *i.e.*, about 3 per cent.

The Usurious Loans Act, 1918, was the first to delegate powers to the courts to regulate the rate of interest. The Agri-

cultural Commission held that the Act was practically a dead letter; but the Central Banking Enquiry Committee held that the Act was capable of being worked to the advantage of the debtors in many Provinces and should be retained.

As a result of the Constitutional Reforms of 1919, Agriculture became a transferred subject. Thereafter, the enactments have generally been undertaken to suit the peculiar conditions of each Province. Before 1919, it is significant to note that except for the *Deccan Agriculturists' Relief Act*, which applied only to four districts, and *the Punjab Land Alienation Act* enacted for the special need of the Province, legislation regarding indebtedness in any form had been undertaken on an all-India basis.

The Punjab Regulation of Accounts Act, 1930, seeks to regulate the moneylenders' business. It requires all moneylenders to use regular account-books and to furnish each debtor biannually with a legible statement of accounts, showing not only the amount outstanding but also all loan transactions entered into during the past six months. It also provided for the keeping of separate accounts of the moneylender from that of his accounts as a shopkeeper, where he combined the two vocations.

As a result of the enactment of the *Moneylenders' Registration Act, 1938* (referred to below at p. 658), the provisions of the Act of 1930 will be strictly observed (owing to severe penalties for non-observance laid down therein), while formerly they had been mostly ignored and evaded.

During the Depression.

One of the peculiar features of the depression was a greater fall in the prices of agricultural produce relatively to the fall in the prices of the manufactured goods. Although the fall in the prices of agricultural produce was very steep, yet the items of expenditure of a cultivator were rigid—as is exclusively borne out by the Farm Accounts published every year by the Board of Economic Inquiry, Punjab. This increased the farmer''s difficulties and there was no way of escape for him from the debt that he had improvidently incurred during the years of prosperity, except that of payment out of the sale of his capital assets—which consisted in land, house and implements.

Measures of relief have been initiated in various countries for the distress that had followed in the wake of economic depression. Relief took the form of bounties, advance of loans on very low

rates of interest, reduction of accumulated interest, reduction of capital debts, prohibition of forced sales of land in execution of decrees, and the exemption from attachment of various items of property according as circumstances in each country seemed to permit, justify, or demand.

Legislation has also been undertaken in the Punjab—up till now more exhaustively than in any other province in India—with a view to relieving the grinding burden of large accumulations of debt.

The Punjab Relief of Indebtedness Act, 1934, was the first of these measures. The important provisions of the Act are as under:—

(*i*) The rate of interest for secured loans is not to exceed 9 per cent per annum compound interest, and 12 per cent per annum simple interest; in the case of unsecured loans, the corresponding rates are 14 per cent and $18\frac{3}{4}$ per cent.

(*ii*) Debt Conciliation Boards may be established for effecting amicable settlement between the creditor and the debtor on application by any of the parties provided the amount of the debtor's debt does not exceed Rs. 10,000. In case a creditor fails to submit the statement of his debts (when an application for settlement has been filed by a debtor or any of the other creditors) by a fixed date, the debt will be deemed to have been discharged. Provision has been made for the granting of a certificate to the debtor in those cases where a fair offer is not accepted by the creditor. The Board can grant such a certificate only when creditors to the extent of 40 per cent of the debtor's debt have come to an amicable settlement with the debtor. If, after the grant of such a certificate, any creditor goes to the law-court, the court shall not allow him any costs or interest exceeding 6 per cent (simple) per annum on the debt outstanding, when the certificate was granted. In case the creditor secures a decree, it would not be executed until six months after the expiry of the period fixed in the "agreement" arrived at under the auspices of the Conciliation Board. The decisions of the Board shall be final.

(*iii*) The Act incorporates the principle of Damduput by which no court shall grant a decree for a larger sum than twice the amount of the sum taken as principal—in the case of a loan borrowed after the Act came in force.

Consequent upon the passage of this Act, Conciliation Boards were appointed in four Districts—Jhang, Hissar, Hoshiarpur

and Rohtak. Debt settlements have been effected in many cases—but, it has been asserted, rarely to the benefit of the creditor. The criticisms that have been levelled against the working of the Boards have evoked no reply from the Government so far, and it may not be unfairly inferred that they are not altogether lacking in veracity. It has been maintained, and plausibly too, that means were provided by this Act to the debtor to create fictitious debts and fictitious creditors and thereby entirely escape the burden of the debt that would have otherwise fallen upon him. In short, the Act in its working has generally been wholly beneficial to the debtor, and only in some cases to the creditor. Another line of criticism against the Act is that, although restrictions have been placed against the creditor for the recovery of debts through the courts, yet the Act has provided no facility for the payment of the particular amounts at the agreed time to the creditor. As in Bhavnagar, the State should have assumed responsibility for the payment of the settled amounts of debts, and it should have made such payment either through the court or through the Co-operative Societies. In any case, it could realize the instalments falling due along with the demands for land revenue or even otherwise. So the effect on the creditor has been very baneful, and consequently he has restricted his activities to as limited a field as he could reasonably do.

The Punjab Debtors' Protection Act of 1936 aims at the more effective protection of the debtor. It exempts from attachment or sale standing trees, apart from the land on which they stand; and standing crops other than cotton and sugarcane. It also provides for such partial exemption of debtor's land from temporary alienation, as may in the opinion of the Deputy Commissioner provide for the maintenance of the debtor and the members of his family, taking into account all his financial circumstances. It exempts ancestral property from liability, except in case the debt has been expressly incurred against mortgage of such property. It reduces the period of execution of a decree from 12 to 6 years.

This Act again provides an effective armour for the protection of the debtor and although giving him a position of vantage over the creditor it does not help the latter in any way except that it will have a sombre effect on his business, and his relations with the debtors will be more guarded in future. Undoubtedly the Act places restrictions in the way of the creditor in the realization of debts in certain cases, but here it will help the poor and the needy.

Recent Developments.

With the advent of Provincial Autonomy, every Provincial Government has legislated to deal with one aspect or the other of this all-important problem of rural debt. In the Punjab four Bills have been passed. Two of them have received the assent of the Governor, while the other two have been referred to the Governor-General.

The Punjab Registration of Moneylsnders' Act, 1938, aims at regulating the business of the moneylender on the lines of the *British Moneylenders' Act, 1937.* According to this Act, every moneylender is to apply for the registration of his name at the office of the Collector of the District; and the registration fee is Rs. 5. He is also to apply for a licence which will be granted to him for such period, in such form, on such conditions and on payment of such fees as may be prescribed. The licence shall be renewed after the expiry of a prescribed period. But his licence is liable to be cancelled, if after the coming into force of this Act, he is found guilty of any dishonest and fraudulent practice in his business or is found by a court to have charged higher rates of interest than those prescribed under *the Punjab Relief of Indebtedness Act* in more than one suit, or has been held by a court to have contravened the provisions of section 3 of *the Punjab Regulation of Accounts Act* in more than two suits. If a moneylender is not registered and does not hold a valid licence, any suit instituted by him for the recovery of a loan or the execution of a decree relating to a loan shall be dismissed after this Act comes into force.

Power has also been given to the Commissioner of granting to the moneylender (whose licence has been cancelled) a certificate specifying the loan in respect of which a suit may be instituted by him or the decrees in respect of which an application for execution may be presented.

The Provincial Government has been given the power to exempt any person or class of persons from the operation of the Act. This Act does not affect the loans granted by a landlord to his tenant for the purposes of husbandry and also those granted by Banks, Co-operative Credit Societies or the Central and Provincial Governments.

The Act is well-intentioned in that it seeks to regulate the much-decried business of the moneylender on a sound footing upon which insistence was laid by the Royal Commission on Agriculture and more so by the Central Banking Enquiry Committee. The Statutory Report issued by the Reserve Bank

of India also stressed the desirability of regulating the moneylenders' business. But the provision for the cancellation of the licence involving the consequent inability of a moneylender to recover any loans may be too harsh, unless used occasionally. So, although there is all the economic justification for the aims of the Act, much will depend upon how it is worked in the future.

The Punjab Restitution of Mortgaged Lands Act, 1938, applies to any subsisting mortgages of land which were effected prior to 8th June, 1901. According to it a mortgagor can at any time present a petition to the Collector praying for restitution of possession of the land mortgaged.

If the Collector finds that the value of the benefits enjoyed by the mortgagee, while in possession, equals or exceeds twice the amount of the principal sum originally advanced under the mortgage, he can order that the mortgage be extinguished and the land be restored to the mortgagor. But, if he finds that it is less than twice the amount of the principal sum and some payment is still due to the mortgagee, he can order for the payment of compensation by the mortgagor to the mortgagee at the following scale:—

1. 30 times the land revenue assessed on the land at the time when it was mortgaged, if the mortgagee has been in possession for a period exceeding 30 but not exceeding 40 years.
2. 15 times if he has been in possession for a period exceeding 40 but not exceeding 50 years.
3. 5 times if he has been in possession for a period exceeding 50 years.

This measure is highly discriminatory, being based on the Land Alienation Act of 1901, which itself is of a discriminatory nature. In so far as the restoration of lands is effected from the clever and the unscrupulous into the hands of the honest, industrious and the needy, the Act will give a real relief. But the Act does not stop at this. It will restore any subsisting mortgage even to a big landlord, where he happens to be the mortgagor, even though the person who is deprived of the possession of the mortgage may himself be involved in distress thereby. This brings out the fact that relief will be afforded not merely to those who stood in need thereof, but to any agriculturist who was in the position of a mortgagor. Another discriminating feature of the Act is that it applies only to the mortgages effected before 1901. It has been estimated that by this measure 729,012 acres

would be redeemed; but if the scope of the Act had been widened to cover the mortgages effected after 1901, another 4,377,000 acres would have been redeemed. If this were done, it would have benefited the mortgagors in the same way and even more (as the number of acres involved is far too large) as those who at some occasion of need did not desist from mortgaging the only few acres they possessed. The mortgagees since 1901 have been mostly the agriculturist moneylenders and the big landlords who possessed the resources to arrange for the possession of a mortgage.

Further, it is unlikely that any compensation will be paid, because during the period of the rise of prices that continued till 1929, rarely was there any piece of land which did not provide its owner (or the mortgagee in possession) with at least double its price in 1901. If this is so, it is clear that only those people who happened to invest their savings in land bear the brunt for no fault of their own; while those who invested in other directions escape unhurt although in numerous cases they have earned more than ten times the amounts invested. This is penalising only a particular class of investors for which there is no economic justification.

The other two Bills are amendments to *the Punjab Alienation of Land Act,* but neither of them has become an Act so far.

The Punjab Alienation of Land Act (Second Amendment) Bill contains provisions that declare the "Benami" transactions null and void. A "Benami" transaction means a transaction of a member of an agricultural tribe with a member of the same agricultural tribe or of a tribe in the same group, and the effect of the transaction is to pass the beneficial interest to a person who is not a member of the same tribe or of a tribe in the same group. The alienor consequently shall be entitled to the possession of the land so alienated, even if he himself was a party to evade the provisions of *the Punjab Alienation of Land Act.*

The legality of the "Benami" transactions has been the subject of a controversy carried on in the press; but we may leave that for the lawyers to decide. What we are concerned with is the fact that the conclusion of "Benami" transactions involved the investment of certain amounts of capital by at least some of the honest investors who sought to prop up the invalidated industry of agriculture. These persons will be deprived of their possessions without any kind of compensation. The incidence of the nullification of "Benami" transactions will be the greater the more recently they have been concluded. The effect of this measure in the restriction of credit of the agriculturist will be

much more than any of the other Bills, because it will involve the disappearance of contracts entered into as recently as a year back. Thus the dispossession of those who happened to invest in land is wholly unjustifiable, and the restriction of credit will injure the agricultural economy of the Province, unless some ready-made system is there to supplant the present system against which these measures have been aimed, in some cases to regulate it, and in others to pave the way for its final abolition—as appears from the writings and utterances of those in power in the press and on the platform.

The last of these Bills is *the Punjab Alienation of Land (Third Amendment) Bill,* 1938, which aims at the inclusion of the agriculturist moneylender to a certain extent in the same category as the non-agriculturist moneylenders. It is provided that, except with the sanction of the Deputy Commissioner, no permanent alienation of land can be made by a member of an agricultural tribe to a member of the same tribe or of a tribe in the same group who being a creditor has advanced to such person any loan, until such loan has been repaid or settled in full by the debtor and a period of three years has elapsed since repayment or settlement.

This Bill has to a certain extent removed the long-standing grievance that the agriculturist moneylender was taking possession of lands of his debtors in lieu of the debts owed to him. This is beneficial so far as it goes; but it does not go far enough in that there is no bar against temporary alenation for unlimited number of years which may practically come to permanent alienation. Again the non-agriculturist moneylender may forthwith purchase the land of a person who stands in need of a loan, and thus may exploit his necessity as much as was availed of by the non-agriculturist prior to 1901.

The general tendency of the recent legislation relating to indebtedness seems to be to strike at the "facilities to borrow," and it is expected that this will go a long way in alleviating the distress of the debtors. Nothing has been done to undermine the root-cause of indebtedness—the necessity to borrow. The Government demands for land revenue and water rates have not been materially reduced, nor has education been imparted to the peasant to make him realize the baneful effects of extravagant and improvident expenditure incurred by him through resort to loans. So far it seems that if the root-cause, that is, the necessity to borrow, remains unaltered, the restriction of credit to the agriculturist is likely to have a disastrous effect on the agriculturist. This has been realized and it is entertained that some new system

may be devised to take the place of the existing one, in case it disappears. Sir Sikander Hyat Khan stated in a public speech in October that the agriculturists " need not fear the proposed boycott in future " (reference is to the agitation started by the non-agriculturists); and that " the peasant Government which regarded the welfare of the rural masses as its first concern would not take long in providing other means of credit in order to satisfy all genuine needs of the peasantry." It is not yet known what these " other means of credit " are going to be and how " the genuine needs of the peasantry " are going to be defined.

The Co-operative Movement which was envisaged to supplant the moneylenders' system of credit, has, as already noticed, fallen far short of the expectations and in some provinces it has signally failed.

The necessity of the moneylender in the system of rural credit was realized by the Royal Commission on Agriculture and again stressed by the Central Banking Enquiry Committee. The only way seems to be in the reform of the present system. Although the main purpose of recent legislation is the eradication of the dishonest moneylenders and the putting of the honest moneylenders' business on a sound footing, the provisions of the new law in some cases (as noted above) are so harsh, that in an attempt to reform the system it may not be killed without providing " other means of credit."

RURAL INDEBTEDNESS IN ASSAM AND THE DEBT CONCILIATION ACT OF 1936

BY

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Assam passed her Debt relief measure in 1936. The seriousness of the problem of the indebtedness in the rural areas and the urgent need for some form of relief were brought to general notice on the publication of the Report of the Royal Commission on Agriculture in 1926-27.

The Economics of this province is almost entirely dependent upon agricultural prosperity. The only important industry, *i.e.*, the Tea industry depends for its regular labour-supply on immigrant population, the indigenous peoples in both the valleys taking little or at best only spasmodic interest in garden employment. The problem of indebtedness in Assam, therefore, is one of agricultural indebtedness.

The whole field was thoroughly examined in 1929-30, by the Assam Provincial Banking Enquiry Committee. The total amount of indebtedness was estimated to be about Rs. 22 crores on a population of $5^3/_5$ millions. For the purpose of this study, however, the hill-districts of Assam can be left alone. The hill-tribes, though living at a very low standard of living, are nevertheless free of indebtedness. The curse of indebtedness is actually concentrated in the two plains districts of Assam.

The economic conditions of the two valleys are however, widelp different in nature. In the Brahmaputra, or more popularly, Assam Valley, the problem is not one of overpopulation on an old country. Fertile tracts of land are, as yet, awaiting exploitation. Nature has been in fact "too kind" in Assam. Floods occur now and then and sometimes crops fail due to drought but the damage done is not usually great (the present floods, of course, are exceptional) and, at such times, the Government tries to afford relief by means of agricultural loans and remissions of land Revenue. The density of population in all

districts of Assam Valley is much less per acre as compared with the Sylhet districts. In recent years, however, immigrants from Mymensingh have taken up much of the waste land and many ex-garden coolies have also established themselves as regular cultivators on the Government temporarily settled areas. Indebtedness is more common among these "foreigners" than among the indigenous agriculturists. The main reasons why the Assamese people run into debts are the inherent lethargic character and addiction to opium, ganja and laopani (rice-beer) which leave them without any balance even in normal years. The Government has tried to reduce the consumption of opium by stricter methods of licensing but the attempt has not been very successful because of a considerable amount of smuggling through the native states lying on the border of Burma. The cottage industries, specially, silk-weaving and rearing of silk worms had a great setback due to the introduction of the cheap artificial pât—thus adding to the causes responsible for lowering the income of the Assam-cultivator-family. The immigrant population is hard-working and tenacious but they are subject to litigous tendencies and are fond of social extravagances.

In the Surma Valley, the struggle for existence is much harder. There is practically no cultivable waste land, available to the population. The liability to floods is greater. The population might have sought relief in emigration to the other valley but the scope is becoming increasingly limited due to the stricter adherence, on the part of the Government, to the so-called "Line-System." The people of this side of Assam have habits of living and tastes for expenditure similar to those of Bengal cultivators and share with them the love of litigation and a desire for articles of luxury. The change of social ideals necessitates a better and often high-school education of the children while sources of extra income from cottage industries are drying up steadily.

To the accumulated effect of all these factors were added the pressure of falling prices of agricultural goods which began roughly by the end of 1930. Both the valleys were drawn into the circle of depression which not only augmented the real burden of funded debts but was responsible for a virtual collapse of the moneylenders' system and a general demoralisation of rural finance.

For about thirty years preceding the present depression the price of land in Assam was going up steadily and in many cases the prices increased to three or four times of the previous value. Borrowing on the security of the family "jote land" was quite

a business proposition and during this period the moneyed middle class as also some loan companies lent much of their surplus money in the rural areas. So long as the price of land was going up credit was available to the holders of the jote-rights in land and the debtors always wanted to wait a little longer before they sold land for repayment of the debts. Actually speaking, it was almost a race between the accumulation of interest and the rise of the price of land. That the volume of indebtedness would increase to a considerable extent under these circumstances is not at all unexpected. In the majority of cases interests soared above the increase in price of land. As this rising trend stopped, the folly of lending business based on an inflated value of land became apparent to the loan companies and to the land-minded middle class who withdrew whatever remnant of their money could be realised from the rural areas. The dependence of the ryot on the village mahajan and in some cases on the well-to-do ex-garden coolie was complete.

The Assam Debt Conciliation Act of 1936 is the first attempt of the Government to solve this problem of idebtedness. It is true that the Usurious Loans Act and the Agriculturists' Loans Act were in force for a long time but these pieces of legislation have nowhere succeeded in giving any real help to the indebted population.

The Assam Provincial Banking Enquiry Committee had expressed the opinion in 1930 that any legislative attempt for debt liquidation should proceed on the lines of encouraging an amicable settlement between the borrower and the lenders and the Assam Debt Conciliation Act was accordingly drawn up on the lines of similar Central Provinces Act.

This Act of 1936 provides for the establishment of Debt Conciliation Boards in both valleys consisting of a Chairman and members not exceeding six in number. These Boards are empowered to settle debts held by bona-fide agriculturists amounting to not less than Rs. fifty and not exceeding Rs. 5,000.

On receipt of an application for settlement from either the borrower or the lender, the Board would call for a representation of the other party and in case the creditors, to whom 40 per cent. of the total debts of the borrower are due, agree to an amicable settlement, the Board would register this agreement in writing which will be binding on all creditors. In return for the agreed reduction in demand the creditor will be given such advantages as may be obtained from a summary procedure for recovery in case of default on the part of the borrower.

The Act, therefore, resembles in board principles the Central Provinces and Bengal Debt Conciliation Acts. It differs from the above legislations in so far as no power is given to the Conciliation Boards to make a compulsory award in case the offer made by the debtor seems to be a fair one to the Board. Instead the Board may issue a certificate including the particulars of the fair offer and the civil courts may refuse to grant a decree in excess of the specified sum apart from such excess would accrue out of simple interest at 6 per cent per annum in the principal due on the date of such certificate. This provision, while not being so drastic as those in the C. P. or Bengal Acts, was expected nevertheless to influence the acceptance of the agreement.

It was pointed out by the Hon. W. L. Scott while introducing the Bill, that for financial reasons Assam could not have many such Boards from the very beginning. It was proposed to start experiment with a Board in each valley in selected areas, and should these Boards prove successful and demand for them still exist, it would be possible to start fresh Boards in fresh places to carry on the good work.

At the present moment two Debt Conciliation Boards are at work in Assam. The South Kamrup Board in the Assam Valley was appointed on the 1st of September, 1937, with a Sub-Deputy Collector as the chairman and three other members. The North Sylhet Board was established a few months later, *i.e.*, on the 3rd January, 1938, with a chairman and six other members.

The work done and the agreement so far registered by the above Boards are as follows. The South Kamrup Board began conciliation work by the beginning of December, 1937, the intervening period being spent for propaganda work. The Board sat at Gauhati and Chayagaon. The number of cases registered during the year (*i.e.*, up to the end of November 1938) are 264. The amount of money involved was approximately Rs. 99,403 13as. 4 pies. The number of cases which failed for the want of amicable settlement were 16 and the amount of money involved was Rs. 8,655 9 as. 6 pies. The cases in which agreement were arrived at were 51 in number. The amount of original debt was Rs. 14,369-3-0, which has been scaled down to the amount of Rs. 8,621-2-0, *i.e.*, approximately to half the previous amount. Another 13 cases involving Rs. 4,158-7-6 have been settled for Rs. 2,120-11-3 and are only awaiting registration by the parties.

Certificates of fair offer were issued 15 cases involving Rs. 4,001-7-0.

At the end of the month of November further 71 cases involving Rs. 19,932-7-0 are pending for agreement.

The above record shows that the Debt Conciliation Boards have been successful in helping the debtors to a fair extent. It is also evident from the local newspapers that the demand for more such Boards, specially in the Sylhet areas, is being felt. In general the Debt Conciliation Boards have succeeded in eliciting a kind reception and a fair amount of sympathy from the public.

The efficacy of such legislations as the Assam Debt Conciliation Act of 1936 in solving the probelm of indebtedness, however, must be limited because of their very nature. It is true that there is a good deal in the view that moneylenders would welcome such provision when they are faced with the problem of the loss of even the principal by limitation but such agreements as may be achieved through the good services of Debt Conciliation Boards touch only the fringe of the probelm. In the absence of a proper machinery for lending money at cheap rates to the debtors, these people on many occasions would be unable to pay even the decretal amount. And it is most important to help those agriculturists who are at the lowest stages of poverty if the building of a strong and satisfied peasantry is the policy of the Government. And even if the Government is ready to advance money at low rates of interest for repayment of debts, the final problem will not be solved. The Government in these cases should be ready to undertake the whole procedure of selling of the small holding of the ryots in realisation of dues to itself—unless in the meantime the Government succeeds in opening up channels of profitable and increased sources of income. It is feared by many that the Debt Conciliation Boards, by introducing some form of disturbances in the relation between the lender and the borrower in the village areas would succeed only in drying up the only source of credit of the ryot, *i.e.*, the loans from the mahajans. The moneylenders would feel shy to lend to the ryots if they have to undergo scaling down of their interest and principal after some time. In fact this has been the experience in Bengal. In Assam, however, in the absence of the power to make compulsory awards, the activities of the Board would not introduce the element of uncertainty to that extent, but the fact remains that any attempt at scaling down of debts would at best only be a temporary relief measure. The ryot would run into debts if his power of resistance is not increased through additional sources of income. This, of course, can be done by a systematic encouragement to the people for resorting to industry.

The new Congress Coalition Ministry is trying to gather facts about these possibilities and if the Government succeeds in launching forth a programme of industrial development of this province and a proper scheme for the development of the vast and varied forest resources the difficult problem of indebtedness might be effectively solved.

TAGAVI LOANS

BY

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Tagavi loans are loans given by the Government to land-holders for agricultural purposes. As the term "Tagavi" is Persian, we infer that this system of lending has been existing in India in some form or other from the pre-British period. Yet Tagavi is unknown to most of our cultivators, most of whom are heavily indebted.

Before discussing the defects and suggesting improvements let us understand the rules and regulations which the Government officers and the debtor landholders have to observe.

According to the Land Improvement Loans Act of 1883 and the Agriculturists' Loans Act of 1884, Tagavi loans are given to landholders, who have complete rights, including right to sell, over the land for (*a*) construction or repair of wells, tanks, canals, and other works of water storage and distribution, (*b*) preparation of land for irrigation, levelling, embankment, fencing, clearing stones, clearing deep roots, (*c*) drainage, (*d*) reclamation of land from rivers, cultivable waste lands, salt lands, and such lands, (*e*) purchase of lands to prevent or cure fragmentation of land, (*f*) purchase of farm cattle, fodder, seeds, seedlings, (*g*) planting of costly crops, such as cocoanuts, cardamons, species, (*h*) purchase of manures, agricultural implements, pumps, water mots (Buckets), ropes, oil presses, cane juice crushers, rice husking machinery, etc., etc.

To avoid the loss which results if the landholders fail somehow to repay the loan amount, the Government conducts local enquiry into the income and honesty of the petitioner, takes sufficient security either from the debtor or from the debtor and a group of debtors of the same village, and grants the loan preferably through the local co-operative society. As many tend to borrow without considering sufficiently the returns to their investment in agriculture, Government takes great care to see that the debtor will not be landed in difficulties. The officer who grants loans has to be convinced that the operation for which the loan is applied enhances net income. In some cases engineers

and experts in agricultural science are consulted. Money is not given if the operation is not likely to yield appreciable profit. The net income, including that resulting from the improvement carried on with the Tagavi loans, should be large enough to eanble the landholder and his family to live with at least the minimum genuine requirements of life and to repay the loan within a reasonable time. If the estimated net income is short of this, the debtor cannot clear off the loan and the creditor cannot recover the money due, because the debtor can declare himself an insolvent. Consequently those who have uneconomic holdings cannot borrow from the Government. As many of the cultivators are likely to misuse the money borrowed for agricultural operations for non-agricultural purposes, such as merry-making, the Government pays large amount in some instalments. Each instalment is paid only when the officer is satisfied with the application of the previous instalment. At the same time care is taken to see that the work going on, need not be stopped just on account of delay in paying the due instalment. If the agricultural operation does not take a long time to be completed, the loan amount is given at one time only. To avoid the trouble of maintaining many accounts, loans of less than Rs. 10 cannot be granted. For the relief of the debtor, to free him from paying interest on the loan amount till the operation is completed, money is paid to the landholder only when it is time to use for the purpose specified. For sinking a well, money is not given in July because it is not the season to sink wells. Similarly for purchasing bullocks, money cannot be advanced just after the working season is over. The loan applications of persons who have commenced an improvement already, for the completion of which the loan is required, receive preferential treatment. The cultivator should have enough money of his own to meet the working capital. For example, the landholder who wants a loan to purchase a pair of bullocks should have his own money to purchase provender for the bullocks. One who wants a loan to sink a well should have his own money to carry on the remaining agricultural operations. If he has not got some money of his own, he is to borrow again from the Government or from anyone else.

The terms of repayment are very liberal. The Government charges a low rate of simple interest on the amount lent. If the loan is taken to carry on land improvement, it can be repaid within 20 years; in some cases the period of repayment is extended to 35 years. As interest is to be paid for a long time in case of prolonged period of repayment, very long-term loans

are not generally granted. If the loan is intended to purchase seed or such things it should be repaid after a year or two. Repayment of full instalment need not be made in a year of famine. When suspensions in land revenue are granted, similar concessions are granted in Tagavi loans also. The instalment due in the famine year can be repaid in the succeeding year of fair or normal crop. If the debtor intends to repay something more than the specified instalment of repayment, the Government receives that amount and adjusts the period of repayment. While fixing the period of repayment the probable occurrence of famines now and then is taken into consideration. The debtor can make repayments of the loan along with land revenue. If the debtor, in spite of his capacity to remit and also in spite of the liberal terms enumerated, fails to remit any instalment within one month of the date fixed for its payment, the whole amount outstanding may be recovered immediately.

Now we shall understand why the Tagavi loans in spite of the liberal terms enumerated above have not been popular among landholders.

(1) A fairly large number of cultivators do not possess economic holdings which could enable them to live comfortably and to repay the loan within a few years. As they have no repaying capacity the Government does not advance them money. Petty landholders who take large land on lease, cultivate it, and obtain a fairly large net income, are not qualified to borrow, because the land held on lease cannot be mortgaged. Similarly petty landowners who have some subsidiary occupations cannot borrow from the Government, because they have not sufficiently large lands to mortgage. (2) The cultivators have often to borrow amounts of Rs. 10 and less. The Government does not grant loans of such low amounts. (3) Many agriculturists do not know the Government advances money for agricultural operations. The low-paid Government servants in villages who are usually corrupt keep the rules regarding the Tagavi loans almost confidential. Only those who offer them bribes are given the necessary information, and are even helped in many ways while getting money. (4) A large percentage of the cultivators who are illiterate are unable to frequently approach revenue officials and convince them of the profits expected from the improvements on land they intend to carry on. Some of the improvements, they think of, are purely speculative. (5) They are not intelligent enough to understand the real advantages of the loans from the Government over the advantages of the loans from the village moneylender. (6) Though they are accustomed to pay land

revenue regularly and though some of them are accustomed to remit premiums regularly to life insurance companies, the idea of repaying the loan on some instalments with some fixed dates frightens them. (7) If the indebted cultivator who incurs the displeasure of either the Government servants in the village or the officials in the Revenue Department, fails to remit in time any one instalment, the official or the Government servants can record something unpleasant about the debtor and can see that the debtor's land is either attached or confiscated in no time. (8) When the debtor fails to repay the loan, and when it is impossible to recover the amount lent, the officer who recommended the debtor's application for loan will be held responsible for the loss to the Government. So the Loans Officer takes extraordinary care and spends a long time to dispose of the application for loan. There is no rule saying that applications for agricultural loans should not be kept pending for more than ten or fifteen days. (9) The illiterate cultivator dislikes to borrow from the Government, because the officials notice his agricultural operations from time to time with the purpose of ascertaining that the money lent to him is utilised towards the very purpose for which it was intended. (10) As there are no definite rules to be observed while estimating the net income from land, after the improvement in land, contemplated, is over, and also as no standards of living of cultivators in different parts of the country are set up, the revenue officials are at liberty to prepare estimates of income and standard of living as they like. Consequently repaying capacity also is being determined without any well-defined principles.

Having sketched the defects in the system of granting Tagavi loans, we may suggest briefly some ways of improving the system. (1) If the cultivator is more friendly or obdeient to the officials than to the village moneylender, the cultivator will have very few troubles. (2) Above all the Government should have a large amount allotted for granting loans for agricultural purposes. Next there should be an official circular saying that petitions for agricultural loans cannot be kept pending for more than a week or two. They should be disposed of before the agricultural season begins. (3) Though it is risky to lend money to persons who cannot mortgage sufficient land, the authorities can be liberal enough to lend small amounts necessary to purchase seeds, manures, implements, etc., to those who hold large area of land on long lease and also to those who earn sufficiently by means of subsidiary occupations. (4) If the agriculturists' scheme of land improvement, towards which the loan

is required, is defective, the Government may give him another scheme which is promising and advance him money. (5) There should be some arrangement by which the needy cultivator, who has repaying capacity, could borrow amounts of Rs. 10 and less. Let three or four cultivators join together and borrow Rs. 30 or 40 on collective security. (6) Before the Government encourages the formation of Debt Conciliation Boards, passes Acts stating that the debt is said to be discharged when double the principal is paid, and desires the private creditors to offer concessions to heavily indebted cultivators, it ought to be liberal in collecting money from its debtors. The debtor cultivator, who is rendered unable to repay the loan by circumstances which are beyond his control, should be declared insolvent, instead of attaching his property. Let him be permitted to sell away his little property and begin afresh his economic activity. Those who have repaying capacity need not be spared if they purposely evade payment. (7) The remarks written by officials regarding debtors should be scrutinised thoroughly. Any mischief of the officials detected ought to be given exemplary treatment. (8) The cultivator also should undergo considerable betterment. When he has to clear off a loan, he should first repay the due instalment and must reduce his expenditure towards other purposes. The Government can recover the loan instalment along with land revenue. (9) Some principles should be laid down, according to which net income, standard of living and repaying capacity are to be estimated. (10) Primarily the officials should be sympathetic (and yet businesslike) and the cultivators hardworking and honest.

COMMERCIAL AGREEMENTS AND INDIA

BY

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I must begin with a word of explanation. The July issue of the *Indian Journal of Economics* contains an article on 'Bilateralism and Indian Trade and Bilateral Treaties' contributed by myself. The article was written in September, 1937, but for some reason it could not be in the hands of readers until after a year. It treats at some length with the question of commercial agreements and India, the subject under discussion at present. The position I took up then remains substantially unaltered. Only I had then recommended the postponement of consideration of the question of a trade treaty with the U. K. in view of the buoyant conditions of trade and an almost obstinate belief that the U. K. and the world would yet choose the wiser course of greater freedom.

I. INDIA'S FOREIGN TRADE POLICY: GENERAL

I may now be permitted to restate and summarise my conclusions in regard to the general question of bilateral trade treaties, and the fundamental lines of a right commercial policy for India.

Bilateral Treaties in general and Bilateralism.

The most important feature of commercial policy in recent years has been the conclusion of a large number of bilateral agreements based on exclusive mutual concessions in respect of tariffs, quotas, exchange allocations, clearing arrangements and sometimes even compensation or barter. A most important effect of this trend in commercial policy is the bilateralisation of international trade or international trade and transactions, that is to say, equalisation between individual countries of total commercial or commercial and financial claims. Agreements involving equivalent reciprocal concessions and tending to balance exports and imports have been used by such countries as the U. K., France and Italy, having normally an unfavourable balance of

trade, to push their exports. 'Buy from those who buy from you'—has been the maxim of their trade policy in concluding such agreements.

Bilateralism Unsuitable for India.

One necessary aim of India's foreign trade policy is to secure an export surplus large enough to enable India to meet her normal obligations abroad for the import of civil, political and military, commercial and industrial, banking, insurance, shipping and financial services. Such a result is unlikely to follow from the adoption or encouragement of a policy calculated to reduce import and export surpluses alike—a policy of bilateral agreements based on compensatory special advantages. In respect of the U. K. *alone* the bilateral principle, if strictly applied to the sum-total of transactions between that country and India could impart a distinct fillip to the latter's export trade. But, in general, and, on the whole, it would form a highly unsuitable basis for Indian trade policy. The policy of the U. K. and other countries in this respect, suited to their immediate and short-run interests, does not set a commendable example for India to follow.

Quotas, Clearings and Compensations.

A word may be said here about the suitability or otherwise in general of novel and extreme methods of trade regulation like quotas, clearings and compensations for the purpose of promoting a policy of trade development. These drastic measures of control were resorted to initially to meet desperate situations. They are symptoms that the basic conditions for the conduct of trade are uncertain and extremely unsatisfactory. They afford no more than a modest alleviation of a bad situation. They are essentially restrictive and discriminatory devices, not fit instruments for the enlargement of trade. They cannot be reckoned among the positive measures of a policy of trade development. They are often clumsy devices, for, among other things, they compel the exporting nation or even an individual exporter to become necessarily an importer at the same time, and *vice versa*. They are expedients fit in general for emergencies only.

Reciprocal unconditional most favoured nation treaties.

The interests of the development of Indian trade would be best served by the restoration of a greater measure of equality of

treatment in international commercial relations than exists at present. Bilateral agreements may be concluded—the term bilateral only means 'between two parties'—based on the unconditional most favoured nation clause. Now it is not perhaps generally known that India as part of the British Empire is a party to a large number of mutual most favoured nation treaties with foreign nations. These treaties do not, indeed, secure for India equality of trading conditions with all countries, in respect of which they obtain. The most favoured nation clause, traditionally held applicable only to tariffs, is dodged by quotas and other essentially discriminating devices. But reciprocity—the exchange of equal or equivalent favours—is not *therefore* a solution. The solution lies in the direction of attempting through negotiations to secure the real objective of the most favoured nation clause—fair and equal treatment for Indian exports in respect not only of tariffs, but, so far as possible, of quota and exchange allocations as well.

Real not nominal Equality of Treatment.

The United States and the U. K. have tried through bilateral negotiations to ensure real, and not mere nominal, maintenance of their most favoured nation rights. The line of advance for India's commercial policy lies along the same direction: not to undermine the authority of the most favoured nation clause, but to aim at making it more effective through a review and revision of her existing bilateral treaties as and when the opportunity arises and through the conclusion of other agreements based on the unconditional most favoured nation clause. Take for instance the case of India's trade with France. In 1936, France imported from India 11 times as much in terms of value as she exported to the latter. Any encouragement of bilateralism between the two countries is bound to have a disastrous incidence on India's exports to France, and at any rate on India's export surplus with that country. Still, Indian exports are at present subject to the maximum tariff on entry into France, and a reciprocal most favoured nation arrangement, which could secure admission for Indian goods into France under the minimum tariff, would be of real benefit to them. Should an advance in this direction appear difficult, however, no retreat to reciprocity becomes *therefore* advisable.

The unconditional clause and an autonomous tariff.

A policy of bargaining for export advantages by the grant of definite tariff and other trade concessions on imports is in conflict

with the policy of pushing full industrial development at home. For the latter purpose, power to vary the tariff at will would be considered essential. This power in turn can be preserved only by maintaining adherence to the unconditional most favoured nation clause: 'The unconditional form represents for the autonomous state a method of conserving its freedom. At the same time, if the clause is reciprocally conditional, the autonomous state must part with its freedom, for it can buy the concessions only at the expense of its freedom.[1]

II. India's Foreign Trade Policy in Relation to the U. K.

What is to be said now about the future of India's trade relations with the U. K.? Should India conclude a trade agreement with that country on the basis of a reciprocal exchange of preferences, to replace the Ottawa agreement?

An underlying assumption.

It may atonce be said that India should prefer the old triangular basis of trading with the U. K., which existed before the adoption by that country of the twin systems of protection and Imperial preference. As things are, however, there appears little likelihood of the U. K. turning back from the path of economic and commercial policy she has chosen for herself. British protectionism and a general system of preferences among Empire countries may then be taken for granted: the definite change in Britain's fiscal policy remains as it was at the time of the Ottawa Conference, the underlying assumption in any reconsideration of the future of India's trade relations with that country.

Allignment of Indo-British Trade Relations with General British Trade Policy.

Given the present policy of the U. K.—that policy has been, and continues to be, a most important influence on the general trend of commercial policy in the world—it is doubtless in India's interest to allign her policy with that of the former in respect of their mutual trade relations. In days of freer and wider markets, it might have been possible for India to steer a solitary course, independent of the general policy of the Empire, relying upon the strength of her position and the favourable fiscal policies of foreign states. It is not the part of wisdom now, in

[1] T. E. Gregory, Tariffs: A Study in Method, p. 459.

face of the restrictionist temper of the world, of depressed prices, reduced trade and contracted markets to cut adrift from the one large bloc of comparative freedom of trade available to India to join, even if it should involve some measure of discrimination against foreign nations.[2]

So long as the present policy of the U. K. remains unaltered, India is likely to lose rather than gain by standing apart. The general protective-*cum*-perferential policy of the U. K., rather than the U. K.-India agreement as such, is, if anything, responsible for the discriminatory policies of foreign states. Therefore, by severing her connection with the preferential system of the U. K., India would lose in the U. K. market, in the Empire markets, and would largely continue to lose in the foreign countries what market she is already losing as a general result of the U. K.'s Imperial preferential policy.

Again, since India's balance of payments with the U. K. is highly 'unfavourable' even at present, a bilateral treaty which in the adjustment of the range and margin of tariff preferences took due account of this state of the total balance of trade and transactions between the U. K. and India, should tend to encourage Indian exports more than imports. This assumes readiness on the part of the U. K. gradually to assimilate her trade relations with India to the new bilateral principle that she herself seeks to enforce in her trade relations with other countries.

The general lines of a proposed U. K.-India Agreement.

What would be the broad outlines of a mutually profitable trade agreement between the U. K. and India?

On the side of exports from India, the articles which do not receive preference in the U. K. at present are mostly raw materials of industry. Though preference might in some cases be helpful to Indian exports, in most cases it would not appear to be an obviously practicable proposition from the U. K.'s point of view. Of exports at present preferred, four important commodities have dropped out of the possible scope of any fresh agreement through the separation of Burma, *viz.*, rice, teakwood, piglead and paraffin-wax. Moreover, until the separation of Burma, tea formed nearly half and now forms an even larger proportion of the total Indian exports of all preferred com-

2 Such discrimination involved by the grant of preferences to the U. K., though it is none the less real, is covered by the recognised exceptions to the most favoured nation clause, and does not by itself furnish a *casus belli* for retaliatory measures specially directed against Indian trade with foreign countries.

modities. In exports of preferred articles to the U. K., the importance of tea is still greater. But tea has been subject to international regulation all these years, and the advantages of this regulation have on the whole out-weighed the benefit of the preference, which has also been reduced from 50 per cent. of the general rate at the beginning to 25 per cent. of the general rate now.[3] The international tea regulation scheme continues in force and is likely to reduce considerably the possible value of the preference during the course of its operation.

It would then appear to be best, taking all the circumstances into view, to have a system of judiciously limited, discriminate and selective preferences on the side both of the U. K. and India. Thus India may obtain preferences, firstly, on such goods as linseed, woollen carpets and rugs, oilcakes and bran and pollard, groundnuts and vegetable oils and other commodities in respect of which preference is likely to be of some definite advantage by way of extending or maintaining India's share of the U. K. market. It might be noted that the principal interest in securing preferences on the above goods is that of India and not of other Empire countries.

The other Empire countries are, however, vitally interested in certain commodities in which India, therefore becomes incidentally interested, *e.g.*, tobacco, coffee, wheat and other cereals, pulses, manures and bones. India would naturally participate in the preferences on these commodities granted principally for the benefit of other Empire countries. The significance of the incidental extension to India of such preferences should be properly appraised in considering the extent of counter-concessions that India should make in return.

The latter might take the form of preferences to U. K. goods belonging to a few really competitive lines of imports. Now it has sometimes been suggested that India might in return give preferences on U. K. goods of which substantial proportions, say 65 per cent. or more, are imported from the U. K. Such comparatively painless schemes of preference might be completely unobjectionable from India's point of view, but are unlikely to be acceptable to the other party.

In any attempt to assess and square the relative value of preferences exchanged, the due measure of importance of the substantial reduction in favour of the U. K. of duties on steel

3 In April, 1933, the general and preferential tariff rates in respect of tea imports were 4*d.* and 2*d.* respectively. After two successive increases they stand now at 8*d.* and 6*d.* respectively.

and cotton goods in the Indian tariff should be taken into account: such 'reduction' partakes of a preferential as well as differential nature.

At any rate, there is no doubt as to the benefit conferred by them on U. K. trade. This has received full recognition by their inclusion as definite obligations assumed by India in the supplementary Indo-British Trade Agreement. In the case of steel the considerations in return for the undertakings by India have ceased to exist. At the time of the Ottawa Conference, the free entry of Indian pig-iron into the U. K. market and a market for exports of Indian semis was secured in return for the import of British galvanised sheet on preferential terms. By January, 1935, when the supplementary Indo-British Agreement was concluded, the terms of the arrangement had so far shifted that the free entry of Indian pig-iron *alone* could be obtained by the guaranty not only of the preferential margin in favour of galvanised sheet but *also* of the differential margin in favour of all British imports of all other kinds of steel. With the removal of the duty on foreign imports of pig-iron in March, 1937, the differential advantage of free entry of Indian pig-iron has ceased to exist.

Conclusion.

Preoccupation with the details of an agreement, even with a customer as important as the U. K. should not distract attention from the factor of fundamental importance to the future of India's export trade—the restoration of international co-operation. India in her own best interests should be ready to share in a joint endeavour to this end. For the present, she can best play her part in the game by maintaining adherence to the unconditional most favoured nation clause, trying to have it enforced in respect not only of tariffs but of quantitative restrictions and foreign exchange allocations in relation to Indian exports as well, and, in the interest of effective action in this direction, to limit the scope and margin of the reciprocal preferences with the U. K. to the extent indicated by prospects of definite and substantial advantage. This policy is in essentials similar to that being followed by the United States of America. That country has consistently refused to be a party to the current type of exclusive reciprocal trade agreement, and resolutely pursued the objective of securing what small advance is possible on liberal lines amid the general illiberal trend of commercial policies. India would do well to follow this straight lead, which eminently suits her position as a great exporting country.

TRADE AGREEMENTS AND INDIA'S TRADE POLICY

BY

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Extremely conflicting opinions are expressed by different sections of economists and statesmen at the present time regarding trade policy. In this sphere as elsewhere we see on the one hand extreme nationalism and self-sufficiency advocated and practised to a large extent, while on the other there are some who advocate a return to complete unrestricted free trade between the nations as a necessary condition of economic revival and a pre-requisite of lasting peace. Thus the very importance of international trade has become a matter of controversy. With the growth of the movement for autarchy, prompted by economic and political factors restrictionism has become the main feature of trade policy in Europe. In India also the post-depression decline of foreign trade has given rise to the feeling that after all foreign trade is a matter of minor importance which need not be bothered about when compared with the major problem of industrialising the country. Two different conclusions are drawn from this. One set of people favour a policy of restricted foreign trade on the continental model as a step towards self-sufficiency. Another set of people argue that the best policy is to leave things free and allow the revival of world trade to take place, India not obstructing the process, not entangling herself in any treaties or obligations.[1] The official attitude seems to favour the retention of our present agreements while largely favouring a policy of leaving trade free without entanglements with other countries.[2]

Our attitude towards foreign trade must largely determine our trade policy. The most reasonable view seems to be that while in the future international trade cannot be as free and play as important a part as in the past, its present position is not satisfactory and attempts should be made to remove some of the restrictions which are choking it. While even long-term tenden-

1 B. K. Madan : "Bilateralism and Indian Trade, and Bilateral Treaties." Indian Journal of Economics, October, 1938.

2 Press Notes on *India's Foreign Trade Policy*, published by The Director of Information, March, 1936.

cies like the growth of industry in agricultural countries and the promotion of agriculture in industrial countries aided by scientific research should anyway have led to a shrinkage in trade protectionism, crisis measures and economic nationalism coupled with war psychology are tending to restrict trade too far and to make its mechanism too cumbrous. The policy to be followed should be one which takes a realistic view of all these tendencies and tries to build up trade out of them as far as possible.[3]

In India's case also, we have to recognise that for a long time to come the prosperity of agriculture will depend on an expanding foreign trade. The quantum of our export and import trade has in recent years increased considerably over that in 1932-33, and in 1935-36 it was observed to be only 12 per cent below the 1927-28 level in exports and 13 per cent below that level in imports. Thus the shrinkage in our foreign trade in terms of quantity is not so great as in terms of value and hence an unduly pessimistic view of the place of foreign trade in our national economy need not be entertained. The industrialisation of the country may change the character of foreign trade but it need not necessarily curtail it. "Clearing out the channels of trade" and bringing about an expansion in it is certainly the objective to be desired.

The extent to which bilateral trade agreements can be used as instruments of such a progressive trade policy is again a matter of controversy. The general opinion of businessmen and the public seems to be in favour of bilateral agreements. The Assembly resolution terminating the Ottawa Agreement makes this clear:—" . . . the Assembly further recommends that the Government of India should immediately examine the trend of the trade of India with various other important countries and the United Kingdom and investigate the possibility of entering into such bilateral trade treaties with them, whenever and wherever possible, to bring about expansion of the export trade of India in those markets and submit such treaty or treaties for the approval of the Assembly." The prevalence of a large number of such bilateral agreements on the continent, the fact that the United Kingdom has entered into several agreements including the recent one with the U. S. A. and the large use made of trade treaties by the U. S. A. in recent years have all been instances from which this view derives support.

3 D. H. Robertson : "The Future of International Trade," Economic Journal, March, 1938.

The general arguments against bilateral treaties are the following:—

1. They generally tend to restrict trade by trying to balance exports and imports in each individual case. They thus kill triangular and multiangular trade the maintenance of which is very important for the revival of international trade.

2. They tend to divert trade from its natural channels to the directions in which agreements exist. For instance, India's active balance of trade with Europe has dwindled from Rs. 35 crores in 1929-30 to Rs. 10 crores in 1936-37, while our passive balance of Rs. 41 crores with the U. K. in 1928-29 has been converted to an active balance of Rs. 18 crores in 1936-37. While the proportion of our trade with most countries is declining that with the U. K. and Japan is increasing.

3. Entering into trade agreements with several countries would mean giving up our autonomy in tariff making.

4. In the case of trade agreements with 'distress' countries like Germany and Italy there are several disabilities and no advantages. Barter arrangements, quotas, compensation and clearing agreements are all instruments which restrict and regiment trade. Except as instruments of preserving tottering exchanges and establishing a totalitarian economic regime they are not helpful. Invariably they tend to reduce trade to the level of that of the country which sends the lower amount of exports. A country with active balances of trade with most of these countries has nothing to gain and everything to lose from trying to enter into agreements with them. Adoption of restrictionist measures by India also will only worsen the situation.

5. As regards the trade agreements entered into by the U. K., they are of a special character being agreements between countries of complementary economic character, each exporting to the other an overwhelmingly large part of some of her requirements.

The Indo-Japanese trade treaty may also be put under this category. These treaties do not afford useful precedents to be followed elsewhere.

6. Whatever may have been the necessity for trade agreements at the time of the depression, now that there has been a considerable amount of business revival there is no longer any need for them.

7. In the case of India her exports being largely staple raw materials, it is better to depend on distributed markets rather than on a few countries.

8. Hence absence of all treaty obligations and complete adherence to the unconditional most-favoured-nation clause is the most desirable course of action.

In accordance with these arguments, Mr. B. K. Madan advocates the giving up of all treaty obligations including that with the U. K. He regards that a treaty with the U. K., which may be the only case of an advantageous bilateral treaty for us, loses much of its importance due to certain recent changes. The official "Press Notes on India's Foreign Trade Policy," however, while recognising that the Ottawa Agreement was a departure from most-favoured-nation treatment, emphasises that it was an attempt at Empire trade on M. F. N. basis ultimately. The official view obviously is that an Indo-British trade agreement of the Ottawa type is desirable.

In considering how far these arguments against bilateral trade treaties are valid for us at present, we have first to examine the position regarding the two important treaties which we have hitherto entered and our experience of those treaties.

As regards the Ottawa Agreement, the system established at Ottawa has been criticised by all parties and all the concerned countries. It is recognised that under the emergency conditions of the crisis, in the face of currency chaos and restrictionism elsewhere, they provided the basis for stabilising and expanding inter-Imperial trade. Great hopes were expressed at the time of their inception and it was expected that they would lead to lower tariffs and expansion of trade in general. But by now the value of this preferential system has practically been spent up and the countries of the Empire are increasingly realising the necessity of trade with the rest of the world. This is indicated by the fact that in all these countries, while an increase was shown in the

percentage of trade with the Empire from 1931 to 1935, the years 1936-37 invariably showed a decline:—

Percentage of Exports to Foreign Countries and to the Empire.

From		1931	1935	1936	1937
Great Britain:					
To Foreign	...	56·2	52·0	50·8	51·7
To Empire	...	43·8	48·0	49·2	48·3
India:					
To Foreign	...	56·2	53·9	54·7	...
To Empire	...	43·8	46·1	45·3	...
South Africa:					
To Foreign	...	37·7	44·5	46·9	51·5
To Empire	...	62·3	55·5	53·1	48·5
Australia:					
To Foreign	...	45·7	37·5	40·8	45·6
To Empire	...	54·3	62·5	59·2	54·4
New Zealand:					
To Foreign	...	6·8	10·5	14·1	17·7
To Empire	...	93·2	89·5	85·9	82·3
Canada:					
To Foreign	...	61·9	47·4	49·6	...
To Empire	...	38·1	52·6	53·4	...
Eire:					
To Foreign	...	3·1	6·9	7·2	8·2
To Empire	...	96·9	93·1	92·8	91·8

(Table from Lord Marley's article on "The Empire as an economic unit," *The Political Quarterly*, Oct.-Dec., 1938).

The fundamental defect of the Ottawa System was that it insisted on certain standard margins of preference and thus necessitated in some cases even the raising of duties and the imposition of new duties. It precluded the possibility of any advantageous trade negotiations with other countries. As the *Economist* (May 1, 1937) remarked, "The greatest defect of the Ottawa Agreements was that—except for pious generalisations they impeded rather than assisted trade between the Empire and the outside world." This objection is of the greatest importance in India's case because as a supplier of a few staple

agricultural commodities India has to depend to a very large extent on non-Empire markets. To overcome this difficulty the Dominions are increasingly adopting the device of maximum preferential duties giving up the maintenance of fixed margins of preference (*e.g.*, agreement between Canada and the U. K., February 1937).

In the case of India several other important objections are also raised. As regards our exports it is pointed out that in several cases, the scope for expansion in the U. K. market is limited and foreign markets are very important. (Jute manufactures, hides & skins, castor seed etc.) In others our share of the U. K. market is very small and preference is not of great value. (Tobacco, coffee, spices, vegetable oils, pulses and beans.) Preference can be of value only in a small group of commodities like linseed, woollen carpets and rugs, oilcakes, bran and pollard, ground-nuts, and probably to a small extent in manures and coffee. The value of preference in important commodities like rice and teak-wood has disappeared with the separation of Burma, while the restriction scheme for tea has rendered preference unnecessary for it. Free entry for certain commodities and the efforts to increase the consumption of raw cotton are considered valuable but not special concessions. On the whole, it is argued that there is only a case for a limited agreement involving preferences over a small group.

As regards imports it is argued that preferences have been indiscriminately granted over a very large number of articles and that these have proved to be of much greater benefit to the U. K. than her preferences to us. This argument is questioned by showing that the expansion of India's share in the U. K. market in recent years has been much larger than that of the U. K. in India. From 1931-32 to 1936-37 India's exports to the U. K. rose from Rs. 42·9 crores to 61·1 crores while imports from the U. K. rose only from 44·8 to 48·1 crores. The *Economist*, (October 30, 1937) gives the following figures to show that the preferences have been of greater benefit to India than to the U. K.:—

	1913	1928	1931	1935	1936
U. K. imports from India as percentages of total imports by value ...	6·3	5·4	4·3	5·4	6·1
U. K. exports to India as percentages of total exports by value ...	13·4	11·6	8·3	8·9	7·7

But the question of 'benefit' as between the two countries is always bound to be a matter of difference of opinion, and provided we are not prevented from entering into advantageous pacts with other countries there need be no objection to concessions to Great Britain which do not jeopardize our industry.

While it is true that our agreement with the U. K. has not fulfilled all our expectations it is generally felt that it has been of some value particularly in preserving the British market while markets elsewhere were contracting. Our achievement of a favourable trade balance with the U. K. has been deemed a natural and necessary development in view of our obligations to that country. In Sir George Schuster's words, the U. K. has provided India with "a much needed outlet to replace the falling off in the European demand." (*Statesman*, June 20, 1938.) A trade pact even on a limited scale is thought to be desirable by most people. Protracted negotiations have been going on between the Indian and British Trade Delegations for a new Indo-British Trade Pact, but differences in the demands of the parties, particularly regarding the quotas to be allotted to British piece-goods and Indian raw cotton have prevented the successful conclusion of the pact.

But questions like this, though important by themselves, are of minor importance from the point of view of the National economy as a whole of both the countries and they should not be allowed to stand in the way of a mutually advantageous trade pact. What is more important is that we should, as the Dominions have done, regain our freedom to give concessions to other nations also in our imports and thus provide the basis for trade pacts with them.

The Indo-Japanese trade agreement has been generally appreciated in our country as a successful instance of a trade treaty. Japan, as the principal consumer of our most important staple product, raw cotton, is held to be entitled to special treatment. But even with regard to this pact, apprehensions have not been wanting. A treaty depending on our taking textile goods in return to raw cotton cannot but be, ultimately, a source of weakness in view of the rapidly expanding nature of our textile industry. The increasing competition which our small industries experience from Japanese goods and the rapid increase of Japanese imports into India largely curtailing our favourable trade balance with that country are also sources of apprehension. Forty-three groups of minor industries in our country have submitted memoranda to the Government complaining of Japanese competi-

tion.[4] But these cannot be formidable objections to the trade treaty because we cannot hold that our revenue tariff should be kept high enough to protect every industry in the country. If protection is needed, it should be given on a scientific basis, and not through the revenue tariff.

These considerations show that our experience of trade pacts has not altogether been unsatisfactory.

That there has not been much scope for advantageous trade treaties with "distress" countries like Italy and Germany is clear, because these countries, in most cases, are intent on reducing imports and expanding exports. If this restriction is not merely a temporary feature of "distress" but a logical counterpart of an autarchic economic policy bound to continue for a long time, the problem of our trade relations with even these countries cannot be completely ignored. Our trade relations with a country like Germany which occupied the third place as a supplier to us and the fourth place as a purchaser from us in 1935-36 cannot be left unsafeguarded while that country goes on rapidly pursuing a policy of finding raw materials elsewhere. The increasing economic and political importance of that country in Europe has got to be reckoned with, and a trade agreement even on a 'barter' basis has eventually to be arrived at. As it is, we do not have much of a favourable balance with that country to lose by trade negotiations. As Mr. Robertson says, "We must be thankful for small mercies. Bilateral agreements are better than nothing to start with; so perhaps even are the despised exchange clearings with which the continent of Europe is honeycombed." Hence it may become necessary for us in the future to think of trade agreements with even "distress" countries.

Trade agreements with other countries including the U. K. and Japan, we may hope, will provide the basis for stabilizing our trade with them and for an expansion if possible. Even for preserving our balance of trade, such a policy will be useful because as regards non-distress countries the basis of agreements is not a balancing of accounts in each case but the extension of mutual concessions and expansion of trade without endangering the balance of payments as a whole. The argument that these measures are unnecessary because there are general signs of recovery is not reassuring because no one can say that we are definitely in a phase of improving business conditions. The experience of recession in the latter part of 1937, and a further

[4] Answer to question No. 20 in the Central Legislative Assembly, 4th February, 1938.

deterioration in the first half of 1938-39 showing a fall of nearly 18·96 crores in our exports and of 14·6 crores in our imports make it difficult for us to proceed in confident expectation of recovery. Trade treaties which at least stabilze our trade with countries like the U. K. and the U. S. A. may be useful connections with countries which are likely to follow a forward economic policy for recovery.

That a trade agreement is valuable only as between 'principal suppliers' is not a convincing argument. In the ordinary course of trade negotiations, it is natural that people's attention should first be directed to securing concessions from countries with which their trade is largely carried on. But for purposes of expansion new channels where our trade forms only a small proportion of the total should prove better spheres for exploration.

Two important points have to be considered in connection with a policy of trade agreements. The first is, are we to follow the principle of the unconditional most-favoured-nation clause, or not? Adherence to the unconditional M. F. N. clause has characterised all the recent American trade agreements and our Indo-Japanese agreement. It has been argued that this provides the only basis for a liberal and progressive commercial policy. It is also argued that there is no conflict between its retention and the negotiation of bilateral agreements on a basis of mutual concessions. This, it appears, is due to the fact that concessions are generally made to 'principal suppliers' and also because "a practice has grown up of further limiting the scope of generalised concessions by narrowing the definition of the items to be covered by bilateral negotiations."[5] This only means that the clause is to a large extent rendered harmless or circumvented. And further, such criteria are not easily applicable to us because our chief exports go to several countries and the imports on which we may be able to grant concessions are also obtained from several sources. Hence, as suggested by Sir A. Salter, the remedy is to modify the clause by its observance not being insisted upon in the case of preferential agreements under carefully defined conditions, "namely, that there should be reciprocal, substantial and progressive reductions as between the contracting parties without any increase of tariffs against other countries, and that the arrangement should be open to other countries on the same or similar conditions."[6]

5 G. P. Auld, Trade Building by Tariff Bargaining, p. 9.

6 Sir A. Salter, World Trade and its Future, p. 96.

Secondly, there is the question of protecting our industries. That trade agreements with other countries will introduce an element of rigidity into our tariff and fetter our freedom to manipulate it according to domestic needs is an important objection.[7]

The importance of the policy of discriminating protection for our national economy is of course not to be questioned. But protected goods do not exhaust our imports, and the revenue tariff should mainly provide the scope for reduction, consistent with the interests of the revenues. Even with regard to protected goods we have been able to give some concessions to England and Japan. "The solution must be sought in the earmarking of certain kinds of goods the demand for which the importers may be allowed to take advantage of."[8] A judicious extension of the quota system by which, as in certain American agreements, the lower rate of duty is levied on imports within the quota, and the higher protective duty on imports above it may be adopted (*e.g.*, The American-Canadian Trade Agreement of 1935.)

The policy to be followed with regard to Trade agreements, as pointed out by Sir Arthur Salter, is to regard them as a part of a comprehensive National economic policy.[9] The trade balance is to be considered as a whole with a view to achieving an even balance. A truly national enquiry, not based merely on sectional interests, into the tariff of the country may reveal possibilities of reducing the tariffs without injury to the industry, the revenues or the trade balance of the country. "It would consider what classes of imports it was most desirable for the country to buy and would then advocate a tariff which would positively encourage these imports." Thus a basis for reduction and bargaining with other countries is provided. These negotiations, he believes, have the best chance of success when begun bilaterally or plurilaterally, and are conducted under conditions which enable the negotiating countries to give advantages to each other which they will not necessarily extend to the rest of the world. Countries with close economic relations or whose production is naturally complementary, and countries whose currency systems are sufficiently related to each other as those of the sterling group, are in the most convenient position for such negotiations. Thus, he believes, "World trade would be

[7] Mr. T. A. Stewart's speech, in the Debate on the Ottawa Agreement in the Central Assembly, 30th March, 1936.

[8] "Indian Finance" 14th May, 1938.

[9] "World Trade and its Future" pp. 91—101.

built up again from national policies through bilateral and then multilateral negotiations and treaties."

Such a policy should prove useful to India. By abandoning fixed margins of preference to the U. K. we will be able to give concessions in the tariff to other countries also. If, as maintained by some, revenue considerations point towards a reduction of duties there is no reason why such a reduction should not be used for bargaining with other countries. Even in the interests of our industries we should, if we could, reduce the duties on machinery which is forming an increasing part of our imports. Similarly the duties on electrical goods (39%), instruments and appliances, clocks, watches, musical instruments (50%), electric bulbs (50%), wireless instruments and parts thereof (50%), similar other high duties and even the general level of 25% may provide scope for reduction. Such a procedure may enable us to expand our trade with a country like the U. S. A. which, in spite of a setback some time ago, has again been expanding. In 1935-36 the U. S. A. was the third in order of importance as importer of our goods and occupied the fourth place as supplier of goods to us. She offers a good market to us in tea, jute, raw and manufactured, hides and skins, oilseeds and cashew nuts. The successful conclusion of the recent Anglo-American trade agreement in which, it appears, America's trade with the entire Empire was considered, should pave the way for the negotiation of an Indo-American trade pact.

A trade pact with Ceylon (occupying the fifth place as our customer in 1935-36) has been under contemplation and it is expected to be taken up early after the conclusion of the Indo-British trade agreement. Pacts with the other colonies in the British Empire are also desirable because they provide valuable markets for us in jute manufactures and cotton manufactures. A pact with Burma is naturally desirable because it is a country which, though separated, forms really a part of one economic region with British India. But in trade pacts with these colonies in the British Empire considerations not merely of trade but also of the rights of Indians in these countries arise and have naturally to be taken into account.

Thus there is a good case for a thorough investigation of all the possibilities for trade pacts, particularly with the U. S. A. and with other parts of the British Empire now, and eventually with other countries in Europe. The recommendation of the Assembly was quite reasonable though it ought to have placed emphasis on a national trade policy rather than on the mere expansion of exports.

A NOTE ON A TRADE AGREEMENT BETWEEN INDIA AND THE U. S. A.

BY

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International political instability lessens today the possible extent to which an attack on world trade barriers can be made through economic collaboration. In view, however, of the recent fall in India's exports, it may be suggested that India can quicken the pace of her development, by starting industries for manufacturing goods out of the raw materials, she is now exporting. (*Vide Financial Times*, Calcutta, October, 1938, page 143.) But it must be remembered that the countries purchasing our raw materials have attained already a high degree of perfection in the productive technique and that except in the case of jute, India does not constitute the only source of their supply. And even in respect of such materials, we may have to see, if the volume of Indian consumption will justify the establishment of an optimum factory unit.

For some time to come, therefore, the need for foreign markets, for some of our raw materials such as raw cotton, tobacco, or oilseeds, would seem to be imperative. I have made an attempt in this note to explore the possibility of our concluding a commercial treaty with the U. S. A. The atmosphere for concluding such a pact is congenial now in view of the recent Anglo-American Trade Agreement.

A historical study of Indo-American Trade reveals that it has undergone striking changes in the twentieth century. The period from 1914—1918 to 1929-30, was a very prosperous era from the standpoint of the export trade of both the countries, but the total volume of trade carried on between them during recent years is practically of the same proportion, as that during the pre-war period. There has been little change in the composition of India's import trade with America, barring the case of raw cotton. And this seems to indicate that in these articles America can substantially expand her exports to India.

Percentage share of the U. S. A. in India's total imports 1913-14.

Instruments	...	8%
Machinery	...	3·3%
Motor cycles and cars	...	15·1%
Mineral oils	...	56·1%

The competition of Britain, Germany, Japan and U. S. S. R. have retarded the progress of American imports into India. The only exception is provided by motor cars and cycles in which the U. S. A. in the post-Ottawa period obtained as large a share as 41·3% in India's total imports of motor cars.

A similar deterioration is traceable in India's exports to the U. S. A.

		1913-14	1933-34
Raw Jute	...	11·5%	7·00%
Jute manufactures	...	41·5	28·5
Hides and skins	...	24·3	13·8
Tea	...	0·7	2·1

(In recent years export of oilseeds has still further decreased.)

U. S. A. has no direct shipping connection with India and has to depend on British middle-men. In actual practice the obstacles in the way of such agreements would seem to be formidable. If they are to be successful, certain facilitating factors are immediately called for.

(*i*) There are the clauses in the Government of India Act of 1935 preventing any discrimination against British imports into India. If a comprehensive Indo-British agreement is renewed this might constitute still another obstacle, but this, however, is not insuperable. Recently Britain has waived a part of the rights secured to her under the Ottawa agreement when Canada concluded a commercial agreement with the U. S. A. This agreement provides for the reduction in British guaranteed preference ranging up to 10% and affects the United Kingdom trade to the extent of 2 million pounds sterling, in such items as chemicals iron and steel manufactures. Britain may not be unwilling to extend similar concessions in favour of India.

(*ii*) Many of the merchant houses in British India have close commercial and financial connection with British manufacturers. Their organisation has as its basis triangular trade. Bilateral trade agreements would hit them very hard. (*Vide* P. E. P. Report on International Trade.)

(*iii*) Most of the exchange banks working in India are old and managed by Englishmen or Scotchmen, who in their own interests would never favour commercial agreements between the U. S. A. and India.

(*iv*) The range of intermediate tariff would have to be greatly extended in the Indian tariff schedule, to facilitate the conclusion of such a trade pact.

(*v*) The present scope of work of the Trade Commissioners for India would have to be extended considerably. In short the Trade Commissioners must post Indian manufacturers up-to-date with changes in consumption in the countries under their jurisdiction.

In conclusion we doubt if such bilateral trade agreements will ultimately result in the substancial freeing of international trade. When such agreements are a part of the programme of national economic planning, and when some of the countries like India because of their financial weekness, are not in a position to reduce their import duties, the results are not likely to be subsantial. As the recently concluded Anglo-American agreement reveals, political factors may often be at work, though the economic consequences of such agreements may be comparatively insignificant. Such agreements may be looked upon just at present as a method, however imperfect it might be, of the political appeasement of the situation between two countries.

BILATERALISM

BY

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I. Move Towards Bilateralism.

Bilateralism is one of the most significant factors in the field of international commercial policy in recent times. It has brought about a radical change not merely in the method of international trade; it has also altered to a large extent the nature and extent of that trade. Whereas formerly all the countries of the world were linked together closely by commercial relations with one another, they are now cut up, as it were, into bilateral sections, the two parties which carry on direct trade with each other on a reciprocal basis. Commercial relations, instead of being multilateral, have now been made to run in bilateral channels.

Trade treaties concluded between the different nations of the world, in recent years have practically abandoned the most-favoured-nation principle, and have incorporated instead the principle of reciprocity. The result has been that world trade has been diverted from its natural channels and carried on under very strict official control. Bilateralism, indeed, has struck at the very root of the liberal Laissez-Faire policy of the XIX century and has, in fact, been one of the most powerful forces in the present era of economic restrictionism.

For India in particular Bilateralism has a special interest at present. The prolonged negotiations for the conclusion of a new trade agreement between her and the United Kingdom seem to have reached a definite stage; and, at this time, a critical study of Bilateralism in its relation to India's trade cannot but be helpful to clear the issues and to indicate the future lines on which the negotiations might proceed.

Bilateralism is that form of Commercial policy according to which trade is carried on between two countries on a reciprocal basis, their mutual claims being adjusted by a direct import and export of goods between them. On the other hand in multilateral trade, the claims of one country on another are adjusted not in a

directly reverse direction but in an indirect and round-about direction through several countries.

Besides this fundamental difference, there are also other features which distinguish bilateral trade from multilateral trade. Under the multilateral system, which is based on the most-favoured-nation principle, the benefits mutually exchanged between two countries are automatically extended to all other countries entitled to the most-favoured-nation treatment. On the other hand, the bilateral system, based on the reciprocity principle, assumes *ex-hypothesi*, the reciprocal exchange of definite and equal concessions and also requires that such mutual benefits should not be extended to third parties at all or should be extended to them only on obtaining similar concessions from them.

In recent years, particularly since the world depression, the tendency towards bilateralism has been developing rapidly. A brief survey of world economic conditions in the post-war period will enable us to understand the reasons for this revolution in commercial policy. With the outbreak of the war in 1914, the period of Laissez-Faire came to an abrupt end. The treaties of peace, which brought the Great War to a close, set up new and independent political units which continued an economic warfare among themselves. These new states sought to make themselves economically self-sufficient by developing their own natural resources. They set up effective trade barriers preventing the entry of capital and commodities from one country into another.

The sudden fall in prices, the stagnation of international lending and the withdrawal of short-term loans which came in with the Depression led to serious troubles with regard to the transfer of funds and caused debt defaults on a large scale. Debtor countries were compelled to adopt very rigid control of foreign exchange in order to avoid a complete breakdown of their monetary system. On the other hand, the free exchange countries took immediate steps to safeguard the interests of their exporters to exchange control countries. These measures generally consisted in bilateral payments or transfer agreements and clearing agreements.

The policy of controlled trade whereby many countries of the world entered into bilateral agreements with each other could not but have serious repercussions on India's foreign trade. There was a large decline in her export trade and, for sometime, there was a practical disappearance of her favourable balance of trade, particularly with the European countries—a favourable balance so vital to her economic existence.

Public opinion in India, therefore, strongly demanded the conclusion of bilateral agreements with those countries whose restrictive policies had told upon her export trade. This demand was accentuated by the general world tendency towards regulated trade based on reciprocity arrangements. And when the United Kingdom herself adopted the new policy of bilateralism, it was urged that India could no longer afford to keep out of the general developments in world commercial policy. In fact in March 1936, the Legislative Assembly voted in favour of the termination of the Ottawa Agreements and a thorough examination into the trend of India's trade with a view to entering into bilateral trade pacts with other countries.

II. The Indo-Japanese Trade Agreements.

India thus became committed to a policy of bilateralism. She has accordingly entered into trade agreements with Japan on the one hand and the United Kingdom on the other.

A brief examination of these Agreements will reveal their essential bearing on India's trade and industry. Let us begin with the Indo-Japanese Trade Agreements. India has concluded two agreements with Japan—one in 1934, which came to an end in 1937 and the other in 1937 which is still in force. These agreements were in substance quota arrangements with regard to India's raw cotton *vis-á-vis* Japanese cotton piece-goods. The underlying principle was obviously barter between the two countries with respect to the two commodities. It must be pointed out at the outset that the Agreements were concluded under the immediate necessity of relieving the cotton-grower of India; but they failed remarkably in taking a longer view of India's industrial development, inasmuch as they directly interfered with the growth of the cotton textile industry in India.

However, it must be admitted that India has gained certain benefits of a general nature from them. The quota arrangements regarding both raw cotton and cotton piece-goods have put an end to the uncertainty in the cotton market on the one hand and a further competition of the Japanese piece-goods in the Indian market on the other. Besides they have removed the ill-feeling which had prevailed in both the countries. They have also raised India's constitutional status as she has been allowed to conclude a trade treaty directly with a foreign power like Japan and so make a real and effective use of the Fiscal Autonomy Convention.

On the other hand, India has not come off well at all in the bargain. In the first place, Japan has taken full advantage of

the most-favoured-nation clause in the Agreement to dump large quantities of cheap miscellaneous manufactured goods such as hardware, glassware, leatherware and other articles. This has obviously hit hard a number of India's infant industries.

Another disadvantage to India is that the balance of trade has been turned against her due to the dumping of the Japanese goods. For instance in 1930-31, the excess of exports over imports from India to Japan was rupees nine crores. It suddenly came down to rupees one crore in the next year. In 1932-33 the balance was turned against India to the extent of six crores of rupees though it was reduced to three crores of rupees in 1933-34. India, however, has regained her position last year with a positive balance of nine crores of rupees, thanks to an all-round increase in the value of her exports to Japan and a slight decrease in her imports. But the general tendency must be noted that while the imports of goods into India from Japan have increased both in variety and volume, the exports from India to Japan such as jute, oilseeds, and pig-iron have considerably diminished. It is, therefore, very necessary that more comprehensive agreements must be entered into in the future.

But by far the most serious handicap to India has been that in both the agreements, India's bargaining strength has not been fully utilised to obtain substantial concessions from Japan. It is clear that Japan depends upon India both for her market wherein to sell a large variety of her goods and also for the supplies of raw cotton to feed her cotton textile industry. Further it is also evident that the vast economic organisation of Japan depends vitally upon her exports, for, though the population of Japan is increasing and her standard of living is also rising, yet all the products of her rapidly expanding and very efficiently managed industries cannot be fully absorbed by her home market. Thus it was quite possible for India to obtain more favourable terms from Japan than hitherto, and so aid not only India's cotton-growers but also her nascent industries.

III. The Indo-British Trade Agreements.

On quite a different footing from the Indo-Japanese Trade Agreements stand the Indo-British trade agreements; as India's agreements with England are said to be affected by other than purely economic considerations. India has entered into three commercial conventions with the United Kingdom, *viz.*, The Ottawa Agreement, the Bombay-Lancashire Textile Agreement, known as the Mody-Lees Pact, and the Indo-British Trade Agreement.

The Ottawa Agreement was not a purely bilateral convention. It was admittedly framed on a basis of Imperial Preference discriminating against countries outside the Empire. The Bombay-Lancashire Agreement, being a mere commercial understanding between private parties in the two countries, was not strictly a trade pact, though it was endowed with statutory recognition by the Government of India in the Tariff Amendment Act of 1934. The Indo-British Trade Agreement was thus the only strictly bilateral pact between the two countries. The main purpose of both the Mody-Lees Pact and the Indo-British Agreement was to ensure a steady market in the United Kingdom for India's raw cotton in return for a preference for British goods in Indian markets with a reasonable margin of protection for Indian industries. The agreements do not contain any direct quota arrangements between them as in the case of the Indo-Japanese Agreements; but they promise equal quota benefits for India's cotton piece-goods and yarns along with British goods in the overseas markets.

India has no doubt gained certain benefits from these agreements. The agreements gave an assurance that increasing quantities of Indian raw cotton and other raw materials would be absorbed by Britain and also definitely provided for the free entry of Indian pig-iron into the United Kingdom. India was given a share for her cotton goods in the markets of the Colonies and Protectorates. It must also be admitted that India gained certain non-economic advantages as the cementing of friendship and goodwill between her and Britain, and the elevation of India's status to that of a high contracting party.

In spite of all these benefits, however, these Agreements, it is argued, were definitely prejudicial to India's interest in many respects. In the first place, while India gave certain definite undertakings by way of tariff reductions on British cotton goods the United Kingdom only offered to consider the steps that might be taken to develop the use of India's cotton and extended a few unsubstantial concessions for India's cotton goods in the overseas markets which have been of little material use to her, inasmuch as she has had to face the competition of other countries in these markets.

It is also alleged that the Indo-British Agreement introduced new and important considerations into India's fiscal policy which were extremely detrimental to her industrial development. It is pointed out that it practically nullified the Fiscal Autonomy Convention by binding India to afford only such measure of protection to her industries as would equate prices of imported

articles to fair selling prices for similar goods in India. Further, it bound the Government of India to afford full opportunity for industries in the United Kingdom to put forth their case before the Tariff Board, whenever it was required to investigate the claims of these industries in India for protection. The Government of India was also required if there was any radical change in the conditions affecting protected industries in India, to cause a fresh enquiry to be made even during the currency of the period of protection, regarding the appropriateness of existing duties, and in any such enquiry, any competing industry in the United Kingdom had to be given a full opportunity to state its case before the Tariff Board. Thus it is pointed out that while formerly the Indian Tariff Board used to confine its enquiry purely to Indian conditions, it has now to take the interest of British industries also into consideration.

It was, therefore, said to be a source of relief to Indian commercial interests when the Indo-British Trade Agreement was terminated in 1936. Negotiations were soon set on foot for a fresh agreement between the two countries. The trade talks have now been carried on for more than two years, and both the parties do not appear to have arrived at a settlement about the crucial points at issue. But till a new agreement is concluded the Ottawa Agreement continues to govern the trade relations between England and India.

IV. The Case For Bilateralism Examined.

The trend of recent commercial policy all over the world is denitely in the direction of bilateralism. The most-favoured-nation principle has been practically given up by the important trading countries. They have entered into short-term bilateral agreements with the object of promoting their mutual commercial interests.

Now the question is whether India also should adopt a wholehearted policy of bilateralism or should continue her present policy of Discriminating Protection with the most-favoured-nation clause?

Supporters of bilateralism put forward a number of arguments in favour of it. They point out that India's usual favourable balance of trade, which is so necessary to her, has been drastically reduced in the last few years by the restrictive measures imposed upon her exports by the foreign countries. According to the *Review of the Trade of India, 1936-37,* "before the depression, India in her trade relations with other countries normally enjoyed a large credit balance in merchandise which

averaged Rs. 78 crores in the five pre-war years, Rs. 76 crores during the five war years, Rs. 53 crores in the post-war quinquennium and Rs. 113 crores in the next quinquennium ending 1928-29. Since then, the credit balance was considerably reduced and declined to the low figure of Rs. 3 crores in 1932-33, but rose to 36 crores in 1933-34. A setback, however, occurred in the following year when the favourable balance of trade in merchandise amounted to only Rs. 23½ crores." And so it appears reasonable for India to bargain with the important foreign buyers of her commodities and negotiate bilateral agreements with them.

Besides this perilous shrinkage in India's favourable trade balance, there is also a striking change in the direction of her foreign trade, which would support the adoption of bilateralism by her. In 1929-30, India had an export surplus of Rs. 35 crores in her trade with the European countries. In the same year, she had a heavy negative balance of Rs. 34 crores in her trade with the United Kingdom. But by 1936-37, this had changed. While the positive balance with Europe had come down to Rs. 16 crores, a new phenomenon was observed of a large positive balance of Rs. 18 crores in India's trade with the United Kingdom. Thus while it was usual for India to meet her obligations to the United Kingdom indirectly by her favourable balance with other foreign countries, she now began to discharge her indebtedness to that country directly by means of an export balance in the trade with her. This remarkable change, largely attributed to the reciprocal trade arrangements between India and the United Kingdom, has been put forward as another point in favour of bilateralism for India.

Further it is argued that the present trends in world commercial policy are all strongly in the direction of restrictionism rather than of liberalism. The major part of the world trade now flows in bilateral channels. The principle adopted is one of reciprocity; that is, " Import from me and I will import from you." To quote from the *World Economic Survey for 1935-36* " As triangular trade is squeezed out, the prospect of creditor countries collecting the debt service due to their nationals depends more and more upon their readiness to conclude clearing or payments agreements with their debtors. Thus the whole range of payments across national frontiers—the invisible as well as the visible items—tend to come under regulation," and international trade tends to be directed into bilateral channels. The same tendency is also visible in the foreign trade of India and bilateral balancing has gained ground at the expense of triangular

trade. To take a few instances, the percentage of exports and imports to the total trade between India on the one hand and the United Kingdom, Japan, Germany and the United States on the other is tending to be equalised. This is particularly noticeable in India's trade with the United Kingdom and Japan with whom she has already entered into trade pacts.

DIRECTION OF TRADE.

	1929—30 per cent	1930—31 per cent	1931—32 per cent	1932—33 per cent	1933—34 per cent	1934—35 per cent	1935—36 per cent	1936—37 per cent
				IMPORTS.				
United Kingdom ...	42·8	37·2	35·5	36·8	41·7	40·6	38·8	38·4
Japan	9·8	8·8	10·6	15·4	14·2	15·4	14·2	15·7
Germany ...	6·6	7·5	8·1	7·8	9·7	7·6	9·2	9·7
U. S. A. ...	7·3	9·2	10·2	8·5	6·2	6·4	6·7	6·5
				EXPORTS.				
United Kingdom ...	21·8	23·8	27·9	28·4	32·8	31·6	31·5	32·2
Japan	10·2	10·6	8·7	10·3	8·5	15·7	13·4	15·0
Germany ...	8·4	6·4	6·3	6·1	6·5	4·6	5·9	4·7
U. S. A. ...	11·6	9·4	8·9	7·4	9·6	8·5	10·1	9·5

In view of these tendencies, it is argued that India must adopt fully the new policy of regulated trade and protect herself against further inroads by external rivals in her domestic markets.

Finally, it is pointed out that India has already made a good start in the right direction by her agreements with Japan and the United Kingdom, with whom she has the largest volume of foreign trade. And it is urged that this policy of entering into suitable bilateral pacts must be extended to her trade with other countries as well, so that she may obtain reciprocal concessions from them. It is no longer in India's interest to follow a liberal policy and allow a free access to her markets for the goods of foreign countries which have imposed various restrictions upon her exports. India must, therefore, fall in line with the general world movement towards planned foreign trade.

On the other hand, the case against the adoption of bilateralism by India is overwhelmingly strong. There are certain characteristic features of India's foreign trade which render a reciprocal trade policy not only unnecessary but also unsuitable for her. In the first place, India is a country with a normal favourable balance of trade. It is true her positive trade balance was reduced to the alarmingly low figure of Rs. 3 crores in

1932-33, but she has since regained her former position. In 1936-37, her exports exceeded her imports by Rs. 77¾ crores. She is, therefore, in quite a different position from countries such as Germany, Italy and France which have made use of short-term bilateral pacts as a defensive measure in order to maintain their declining export trade and, if possible, to expand it. India need not, therefore, resort to bilateral bargaining in her trade with other countries. Besides it is not suitable to her; for, with her usual excess of exports over imports, it is not possible for her to bargain as effectively as other countries with a normal negative trade balance. She cannot grant acceptable concessions to other countries in her market and thereby induce them to buy from her in return. Further, India is now following a policy of industrialisation; and as such, she needs must preserve her home markets for her own products.

It may, however, be argued with some force that since India has normally a negative trade balance with the United Kingdom, her commercial relations with that country at least might with advantage be regulated by means of bilateral pacts. There are, however, many objections to this procedure. India's experience in the previous Indo-British Trade Agreements shows how difficult it is for her to confine herself to purely economic considerations, while the prolonged negotiations for the conclusion of the new Agreement also indicate their extreme complexity. Besides, it has been traditional for India to meet her indebtedness to the United Kingdom, not directly but indirectly by means of her favourable balances with third countries; and any discrimination against them in favour of the United Kingdom would lead to retaliation on their part against India, which she can ill afford to invite and much less to withstand. The reason is that India's exports consist largely of agricultural products; and their supply, depending as they do on natural conditions, cannot be varied at will. At the same time, the demand for them by a single industrial country may be also quite as inelastic. It is obvious that India should have a broad basis for her export trade rather than depend upon only a few countries, wherein to find a market for her products. Finally, whatever merits a policy of reciprocal preference, even as regards the United Kingdom, might have had for India, in the depression period, when the terms of trade were against her and her favourable balance had been on the point of being wiped out, they have all been lost now, as she has regained her normal export surplus.

Apart from these considerations which arise out of the peculiar conditions of India's foreign trade, there are serious

practical difficulties in the way of the actual conclusion of bilateral agreements between two countries. Now the two indispensable requirements of bilateral trade pacts are firstly, that each must give to the other and receive in return from the other certain definite and equal concessions; and secondly, that these concessions should not be extended to third parties at all or should be extended to them only on getting exactly similar concessions from them.

The difficulty arises at the very outset as to the exact measurement of this *quid pro quo*. It is obvious that no common standard can be arrived at as each country has its own special problems with regard to its foreign trade. For instance, the United States may deem it a greater concession to allow the import of a raw material such as cotton than the United Kingdom, for the former is herself a producer of cotton while the latter is entirely dependent on foreign supplies for her textile industries.

Again so long as a country is required to offer different and not the same concessions, it may not be difficult to arrive at a settlement. On the other hand, if two countries demand exactly similar concessions for the entry of their products and are ready to offer equally attractive concessions in return, then it would indeed be the most difficult problem to make a choice between them. For instance, to choose between the import of electric appliances from Japan or the United States and offer acceptable concessions to them would be a troublesome question for India.

Besides, it is impossible to assess exactly the value of any concession made by one country to another long before the agreement is put into actual operation; for; economic conditions are never static, and what was deemed to be very valuable at the time the agreement was made might turn out to be not so beneficial at a later time. Changes in economic conditions are sure to alter the importance of mutual concessions between the parties to the agreement.

Supporters of bilateralism also urge that it can be used as an instrument for promoting the industrialisation of India and so bring about a balanced economy. But a moment's reflection will show why India cannot benefit in this respect by a policy of bilateralism. In the first place, reciprocity requires tariff and trade preferences to be shown by one party to the other in the domestic market, certain sections of which at least will have to be thrown open to competition from the goods of the other country. Concretely, as between India and Japan, in any reciprocity arrangement, India must allow the import of Japanese textiles and other commodities, which necessarily compete with and

displace Indian products in her internal markets. Besides, it is obvious that the extensive adoption of a bilateral trade policy by India would *pro-tanto* curtail her freedom to use her tariff and other protectionist devices for the promotion of her home industries. Every time she enters into a reciprocal commercial agreement with another country, she will have to part with some portion of her fiscal autonomy in return for some concession which she seeks to obtain from the other. Thus, in the end, India will have bound herself completely by a series of conventions and restrictions. Indeed she may have to lose all her discretion to adjust her commercial policy with a view to promote her industries.

Again, as the League of Nations Enquiry into clearing agreements points out, " This deviation of trade, this artificial canalisation of commerce between countries connected by bilateral agreement is moreover ante-economic." For, in the first place, the contracting parties, being forced to buy from each other even such articles as they could purchase elsewhere more cheaply, will have to pay more for their purchases. And secondly, both the parties may have to buy useless or unnecessary goods which they would normally not import, solely and in order to bargain for some concessions between themselves.

Finally, bilateralism will involve too much of administrative interference with the daily commercial transactions of the people, which is vexatious to a degree. And, if carried to the utmost, it will end in a regimentation of the life and activities of the citizens till they are reduced to mere automatons who must produce, exchange and consume only such commodities as are authorised by the State in accordance with its policy of planned foreign trade.

VI. Objectives of India's Trade Policy. Conclusion.

It is thus clear that India's interests are best served by a policy of liberal trade rather than by one of restrictive bilateralism. But if India should adopt a policy of bilateralism in order to keep in line with recent trends in commercial policy, she should pay careful attention to a few vital considerations.

Now, India might adopt one of the three broad commercial policies: *viz.*, (i) the present policy of discriminating protection with the most-favoured-nation clause; (ii) a policy of Imperial Preference; and (iii) a policy of reciprocity or Bilateralism consisting of the mutual exchange of tariff and quota concessions with other countries. So far, we have seen that India has

contracted, in addition to the Ottawa Agreements, three strictly bilateral trade pacts which cannot be said to have advanced her commercial or industrial interests. Neither a policy of Imperial Preference nor a policy of Reciprocity has been found to be beneficial to her. And so it appears that it is best for her to continue the policy of discriminating protection for it will ensure markets for her exports and it will not invite retaliation from other countries. The absence of real reciprocity in the Ottawa, the Indo-Japanese and Indo-British Trade agreements is their gravest defect so far as India's economic interests are concerned. And we have seen how difficult, if not impossible, it is for India with her peculiar conditions of trade to impose the principle of reciprocity on the other contracting party in any bilateral agreement, which she may conclude.

Further, it is true India is predominantly an agricultural country and a large exporter of primary products. But it should not be forgotten that she has also made a good start in the direction of industrialisation and that her ultimate object is the attainment of a balanced economy. As such, she must not be too anxious to dispose of her agricultural products abroad without adequate regard to the growing needs of her own industries. A policy of indiscriminate export of raw materials affects her industries directly and also weakens their position indirectly by inviting competition from foreign goods which must be allowed to be imported in return for the export of her raw materials to other countries.

There is yet another consideration. If countries like Japan seek outlets for their manufactured goods in Indian markets, India should also try to find markets for her industrial products abroad. For instance, Ceylon and the countries bordering on the Indian Ocean and certain British colonies in Africa afford large opportunities for the expansion of India's cotton goods exports. Agreements on a quota basis with these countries would indeed ensure a better development of India's cotton textiles and manufacturing industries.

Finally, it cannot be too much emphasised that the real economic needs of India should be kept in view in framing any fiscal policy. If bilateral trade agreements should be concluded, they must be as comprehensive as possible. Not merely a few commodities such as raw cotton on the one hand or cotton textiles on the other should form the subject-matter of bargaining on either side, as it had been hitherto. The agreements should cover a wide field. At the same time, the bargaining strength of India must be fully utilised to obtain concessions from other countries.

NAGPUR UNIVERSITY

Inaugural Address delivered by T. J. Kedar, Esq., B.A., LL.B., M.L.A., Vice-Chancellor, Nagpur University, on the 29th December, 1938, at the 21st Session of the Indian Economic Conference held at Nagpur.

Mr. President-designate,

Ladies and Gentlemen,

As announced already, our revered Prime Minister should have inaugurated this 21st Session of the Indian Economic Conference. Owing to a domestic difficulty he has not been here in our midst and his task has fallen on my unworthy shoulders. From him you would have got authoritative pronouncements breathing cheer and comfort to the afflicted souls of the sons and daughters of India. Friends, though deprived of this pleasure, you will, I trust, generously bear with me.

In the first place, I must heartily welcome you to this capital of the Central Provinces, the historic city of the Bhonslas. Nagpur, as the name goes, is said to be associated with the culture of the Naga races in the dim past and that is, perhaps, the reason which has led this University to adopt on its Seal and Coat of Arms, the symbol of a "Nag." Unfortunately during recent months, the "Nag" has caused a scare in some quarters but, I assure you, it holds out no menace to you who have devoted your lives to the cultivation and propagation of Science, and production and utilization of the wealth of the country. I am reminded of a legend in the Puranas that this earth rests on the hood of a "Nag" and under the canopy of the extensive hood lie protected the two creative forces of the world, Science and Wealth, personified in the forms of Vishnu and Laxmi.

Ladies and Gentlemen, I am firm in my belief that Science and Wealth will be absolutely safe under the protection of the

emblem of the "Nag" and no communal or other unworthy considerations shall mar their conservation and development.

I am equally firm in my another belief that this great country can never take its place alongside of the great nations of the world, without a complete Industrialisation. This requires, I admit, a change in our present political ideology, but if I read the writing on the wall, the change has already come, and it has come to stay for the lasting good of this country. The recent Planning Committee inaugurated in Bombay, the other day, is a sign of the times pregnant with great possibilities. It will scrap, if the committee functions properly, the Ashram ideology which does not take stock of the international cosmography and our place therein. If there is one thing common to all the Nations of the world it is commerce and industry. In fact, no society can call itself a nation without it. This truth has been realised by mankind from very early times. One of the questions put by the Sage Narada to King Yudhishthira as related in the Mahabharat was "Oh king, do your officers who are paid from the taxes to be realised from merchandise take only their just dues from the merchants that come from distant places with the desire of gain?" In the Arthashastra of Kautilya, Industry appears to have been made a concern of the State. Kautilya says:—

> "Merchandise which is widely distributed shall be centralised and its price enhanced. When the enhanced rate becomes popular, another rate shall be declared. The merchandise of the King which is locally manufactured shall be centralised; imported merchandise shall be distributed in several markets for sale. Both kinds of merchandise shall be favourably sold to the people. He (the Superintendent of Commerce) shall avoid such large profits as will harm the people."

What, then, is the problem of the country today? It is industrialisation pure and simple and herein comes the need of economists, both academic and practical. It was unfortunate that during the last two decades, you should have been in what is familiar to Hindu as "*Ajnyatvasa*"—a life led without recognition, but now, the time has surely come when your contributions to the wellbeing of this country will be eagerly looked for. The Planning Committee reminds us of the efforts made by the United States of America, Canada and the Soviet Russia, and who can say now that your services are not wanted for securing the

self-government of the industries? It is a sad commentary on the Bureaucratic rule that there should have been no reliable statistics of the industries, organised and unorganised, the qualities and values of products manufactured and raw materials utilised. It is regrettable that there has been no systematic survey of natural resources or an analysis of imports and exports. You cannot, however, afford to waste your time in blaming the foreign agency. You have got to put your shoulders to the wheel and prepare the necessary ground for the economic planning. The provincial governments are bound to help you in this direction and your advice and guidance will be invaluable.

Fortunately for the country, there has been the Congress rule in eight provinces and there does not seem to me any reason why the provinces should not join together and evolve a scheme of large-scale industries, each province undertaking one or two industries according to the resources available in the province.

It seems to be a settled fact that the competitive system is a failure and State-intervention in some form or other is essential and inevitable. The problem of starting medium-scale and cottage industries has also to be faced and to what extent the State-intervention should go for these, is a matter which has to be explored.

A tradition has gained ground that a few races are destined by nature to do the manufacturing of the world. It is for the sons and daughters of India to destroy this tradition. I know we cannot fully succeed in this objective until we secure our political liberation, but it is given to us to be industry-minded and to make such use as we can of the present powers we enjoy. We cannot forget that we once led the world in Industries as much as we did it in philosophy and religion. Let me recall the words of one of our great men—Sir M. Vishveshwaraya—" This is a machine-age, an age of collectivism, an age of economic nationalism. There should be policies and propaganda to make the people adjust themselves easily to the changing conditions. Well-equipped industries, efficient managers, trained technologists and skilled workmen constitute the true wealth of the country."

Ladies and Gentlemen, if it is the proud boast of Germany that the schoolmasters of Germany won the battle of Sedan in 1870, let it be the proud boast of the Indian Economists and Industrialists that they have converted what is today the dream of Purnaswaraj into a reality of tomorrow.

I heartily welcome, once again, the delegates to this Conference and while inaugurating the Conference let me recite the prayer written centuries ago by the great Veda-Vyasa—

सर्वे च सुखिनः सन्तु, सर्वे सन्तु निरामयाः ।
सर्वे भद्राणि पश्यन्तु, न कश्चिद् दुःखभाग् भवेत् ॥

> "May all enjoy happiness; may all be free from infirmities and radiate happiness to others; may all see auspicious days; may none suffer from want and misery."

Vande Mataram.

THE NEED FOR A NEW OUTLOOK IN ECONOMICS

BY

DR. GYAN CHAND, M.A., Ph.D.,

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The compliment which you have paid me in electing me President of this session of the Indian Economic Conference is a great honour which I fully appreciate and gratefully acknowledge. The stirring—almost stormy—times, through which we are passing, have far-reaching re-actions for every branch of human knowledge and render it necessary to reassess its position with reference to the tendencies and forces at work; but for the students of Economics their bearing is even more far-reaching owing to the fact that the issues with which we deal are the issues which are dividing the world into opposite and hostile camps and leading to conflicts which menace the very existence of civilization. Even the students of physical sciences are realising that the new world, which their labours have brought into being, is on the brink of a disaster and they have to assume their share of responsibility for saving it. The responsibility of the student of social sciences is much greater because the precarious position, in which we find ourselves, is due far more to disequilibrium of social forces than to the contributions of natural sciences and their effects. The resources of science have to be used for redeeming instead of destroying humanity, but the vision and driving power necessary for averting the impending fate cannot be supplied by physics, chemistry or even biology. Objectivity and detachment which they stand for are values of the highest order, and their importance to-day is far greater than ever owing to the passionate approach to human problems becoming more and more common. But "the sphere of values," as Bertrand Russell has told us, "lies outside science except in so far as science consists in the pursuit of knowledge. Science as the pursuit of power must not obtrude upon the sphere of values and scientific technique, if it is to enrich human life, must not outweigh the ends which it should serve."[1]

[1] Bertrand Russell, *Scientific Outlook*, p. 266.

Scientific Neutrality.

2. Science must not outweigh the ends which it serves. But Economics has always been regarded by the economists as a science and its ethical and political neutrality asserted times out of number. In all the standard text-books the readers are warned against attributing any normative significance to economic values and are asked to remember that, from the standpoint of Economics, all satisfactions are alike in the sense that intrinsic value, to use Jevons' words, is a 'non-entity' and in value-in-exchange the difference between exhilaration derived from a glass of beer and a beatific vision is of no consequence. This contention has always been regarded as essential for claiming for Economics an independent status and maintaining the validity of its conclusions from the scientific standpoint.

3. Common as this view has been, in practice the economists have not adhered to it and have frequently pronounced judgments upon issues as economists by throwing into the balance considerations with which, according to the logic of their argument, they had nothing to do. Professor Lionel Robbins, who is the most uncompromising contemporary exponent of this view,[2] is no exception to the rule. According to him, there are not and cannot be any economic ends;(1) all economic 'welfare economists' are, to borrow a phrase from the armoury of his ideological opponents, 'left deviationists;' the economists cannot go behind changes in individual valuations under which lies 'the irrational element of economists' discourse;' there can be no 'penumbra of approbation round the Theory of Equilibrium;'(2) Economics is the branch of knowledge which above all others is the 'symbol and safeguard of rationality in social arrangements.'(3) And yet planning from his point of view is 'destitute of instruments of calculating the ends of the community,' and, 'if you scratch a would-be planner, you usually find a would-be dictator.'[3](1) Prof. Robbins knows as well as any student of Economics that ends are incalculable and that is why he repeats that "Economics is neutral as between ends,"(2) but by condemning all planning as arbitrary and irrational he ranges himself against the end of planned economy as a form of social arrangement and its animating social purpose.

4. Neutrality claimed for Economics is really a device for maintaining the *status quo* and making it, not a technique of

[2] Lionel Robins, *The Nature and Scope of Economic Science*, (1) p. 24. (2) p. 127, (3) p. 141.

[3] *Ibid.*, (1) p. 112, (2) p. 131.

rational action, 'or an efficient perceptive apparatus,' but a weapon of defence of a system, which, even most of its ardent supporters maintain, badly stands in need of revision and re-adjustment. It is not my purpose to discuss the whole issue of ends and means. Limits of space, if not my own limitations, would render it advisable that I should not even attempt to deal with it. But at a time when the economists' authority has been all but destroyed and they are being accused more and more of conscious or unconscious falsification of thought, to make out a case for giving the existing system a longer lease of life, it cannot but be distressing for an economist to find neutrality being used as a shield for protecting the existing system and for carrying on a rear-guard action against the forces whose attack is directed against it because of its failure both as an end and a means. Let us have genuine neutrality if it is desirable or attainable in the interest of intellectual probity or for delimitation of the frontiers of Economics. But intervention in the name of non-intervention is the worst form of intervention. In contemporary international politics it has been the cause of intolerable agony of a valiant nation and of the use of pretences which have exposed the statesmen concerned to universal obloquy and lowered the moral prestige of the nations whom they are leading beyond all reckoning.

5. Economics is already in a bad way. Disagreement among the economists, even in cases where the fundamentals are involved, have had a most disconcerting effect on the mind of laymen. Impartiality of Economics has been challenged for a long time and is now more and more in question; and owing to our undue reliance upon what one writer somewhat uncharitably calls "terrifying equations and impressive non-sense" as instrument of thought, the economists have fallen from the position of prophets, which they occupied in the 19th century, to that of priests of an outworn creed. Either their guidance is not sought at all in matters of importance, or when it is offered, it is dismissed as, to quote H. G. Wells, 'dreary and foolish as the outpouring of medieval schoolmen.' We cannot afford to undermine our position and prestige further by constituting ourselves into a non-intervention committee for the purpose of intervening on the side of re-actionary forces and vested interests. We may do so if we declare frankly that we are on one side of the barricade and regard that side in the right; but we cannot deceive others, even if we can deceive ourselves, that we are neutral when we are giving merely perhaps a more genial but also more dubious character to old speculations in favour of 'the simple and obvious

system of natural liberty,' and when what is most simple and obvious is that the system has changed its character and is the major cause of the conflicts which have already caused indescribable havoc and made wholesale destruction an overhanging reality.

6. It would be possible to cite a large number of instances from the writings of most respectable economists to show that neutrality of Economics is suspect for very good reasons. I will be content with giving only one instance. In a book which has been written to show that 'private ownership in the means of production' is the only possible basis of society without which it cannot exist and develop and 'whoever prefers life to death, happiness to suffering, well-being to misery' must accept society, *i.e.*, the 'social utility of private porperty,' and be convinced of the 'perniciousness of every other system,'[4] Professor Ludwig Von Mises declares in the opening pages of his book that 'wealth of successful business is always the result of consumers' plebiscite and once acquired this wealth can be retained only if it is maintained in the way regarded by the consumers as the most beneficial to them.'[5] According to him 'capitalist society is the realisation of economic democracy' in which 'every child who prefers one toy to another puts its voting paper in the ballot box which eventually decides who shall be the captain of industry,' and further that though 'there is no equality of votes in this democracy, the greater voting power which the disposal of greater income implies can only be acquired and maintained by the test of election.'

7. This is from a book which its author describes as 'a scientific inquiry and not a political polemic.'[6] Lest this should be regarded as an unfair illustration and not at all typical of the writing of economists, I hasten to add that this is only a more emphatic and at the same time a more effective version of the familiar doctrine of maximum aggregate satisfaction which is one of the major premises of economic theory. Professor Robbins and Dr. Hayek have, it is well known, followed the lead of Prof. Mises and are carrying on vigorous crusade to show that any departure from the precepts of economic theory can only lead to utter confusion in production and involve absence of all criteria of rationality. The underlying assumption of the argument, of course, is that market valuations at present are rational valuations

4 Ludwig Von Mises, *Socialism*, pp. 514 and 515.

5 *Op., Cit.*, p. 21.

6 *Ibid.*, p. 22.

and every one is paid according to his contribution to social income, *i.e.*, marginal net product. The marginal productivity theory is in effect Prof. Mises' theory of 'election result' and all the conclusions set forth by him in the 'scientific inquiry' are implicit in it and the complementary theory of maximum aggregate satisfaction. Mises, Robbins and Hayek are leading a counter-attack against planned economy and fighting for what looks like a lost cause; but what is new in their writings is the crusader's zeal aroused by the danger of 'the anxious days that are to come,' but not the substance of their argument. The dispensation which they stand for is contained in the corpus of economic theory, which is, to quote J. M. Keynes' words, used in an entirely different context, "dusty survival of a plan to meet the problems of fifty (it should be one hundred) years ago."[7]

Rationality of Economic System.

8. In Prof. Robbins' opinion, referred to a little earlier, Economics is 'the symbol and safeguard of rationality in social arrangements.' But the Economics which he and his comrades-in-arms are propounding in the style of an age now fast crumbling to pieces before our eyes is the symbol and safeguard, not of rationality in social arrangement, but of an irrational prejudice. The world that we are living in is irrational not merely because force is all-powerful and using the technique of mass suggestion, and, its natural result, mass hysteria, as an instrument of action, but because as J. M. Keynes has brilliantly shown in Chapter XII of his *General Theory of Employment, Interest and Money*, the very core of the economic system is irrational. Confidence being the most important factor in determining the estimate of prospective yield of investment is subject to most incalculable fits of fluctuations; and the fact, that the future has always been and in the precarious world of to-day is becoming more and more unpredictable, makes investment a game of chance in which the cleverest brains are engaged 'in a battle of wits' to outwit the crowd and 'pass on the bad or depreciating half-crown to the other fellow.' Intelligent forecasts of the likely return of investment even over a short period of five years being well-nigh impossible, the wheels of industry can go round only as a 'result of animal spirits of a spontaneous urge to action rather than inaction' and no means are available for defeating 'the dark forces of time and ignorance.' The whole economic activity is a

7 J. M. Keynes, *The End of Laissez-Faire*, p. 45.

game of 'snap who snap can,' and the forces of mass psychology, which are not only irrational but liable to sudden and arbitrary changes, become the most decisive factors in determining the nature, direction and extent of investment.

9. I have compressed J. M. Keynes' Chapter of 17 pages into as many lines; and though I cannot even faintly reproduce its immanent spirit, I have stated the essentials of its argument without doing it any damage. If the above account is correct and I for one cannot see how its correctness can be impugned by anyone who knows even the elementary facts of the existing regime—it can be used to point to many morals. Professor McDougall,[8] for example, uses it for urging the necessity of systematic knowledge of these imponderables—'the interplay of mental forces which is the economic and political life of the world.' Human nature in Economics is a neglected branch of study and, as everyone knows, much harm has been done to economic studies by making illicit assumptions regarding the mainsprings of men's thought and conduct. But I do not anticipate the possibility of resolving world chaos into some sort of coherent order with the aid of McDougall's *Introduction to Social Psychology* and *Group Mind* or standard works of other eminent psychologists, for most of whom I have profound respect, even though I cannot get much light from them for illumining the darkness that lies ahead of us.

10. J. M. Keynes himself uses his argument for making out a case for skilled investment by the State which, according to him, is in a position to organise investment 'on long views and on the basis of the general social advantage.' The case which he makes is unanswerable, though he does not tell us, to adapt again his own words used elsewhere,[9] 'how appropriate organs of action for exercising directive intelligence' can be forged in a world in which the forces of ignorance are in power and using it almost exclusively for defending their position irrespective of the cost which their action involves in human suffering and hopes. But for the purpose of the argument in hand the bearing of J. M. Keynes' indictment to me is quite clear. The processes at work to-day do not provide a sound basis for the distribution of scarce means between alternative ends, future returns cannot be capitalized on any rational basis and the colossal waste of men, machines and materials, that is such an outstanding feature of

[8] W. McDougall, *World Chaos*, pp. 97—98.

[9] J. M. Keynes, *The End of Laissez-Faire*, 45.

our times, is a convincing demonstration of the irrationality of the whole process.

Social Setting and Economic Theory.

11. An obvious implication of the above conclusion would, of course, be that the charge of rational production being impossible under any system except the one in which there is no conscious direction of productive forces cannot be sustained. Apart from the obvious illogic of maintaining that the height of rationality can be attained only when social behaviour becomes completely purposeless and, therefore, irrational from the standpoint of the community, the facts have shattered the case for an automatic, self-directed system and, therefore, also against the case of the system animated and directed by a conscious social purpose. There is also involved another point in the argument to which recent speculations have given quite an unnecessary importance.[10] That Economics is neutral as between ends is an old argument which has only been dressed up in a new garb. But now it is being maintained that economic theory and economic laws are completely independent of institutional settings and, therefore, the inference is that no change howsoever revolutionary it may be, can make any difference to the validity of economic theories. The exaggerated claims that economic laws were not limited by differences of time or historical conditions were made by the earlier economists; but their underlying assumption was that human nature was really the same everywhere, the differences were more of degree than of kind and wherever economic laws seemed to be inapplicable, the seeming difference was really due to 'friction,' to the flow of competitive forces being arrested by resistance which the former must gradually undermine and eventually overcome. The point, which is now being made, is however entirely different. It is maintained, as I have said, that the differences of millieu, of the basic assumptions of a social system and its operative factors are of no account from the economic standpoint, and further that the economist can formulate his theories and use them for the solution of economic problems as if these differences did not exist. Feudalism, capitalism, fascism and communism are, from this point of view, merely irrelevant issues for economic theory; and though the systems

10 I do not give any quotations in support of this statement, for they would take too much space; but the works of Professors Robins, Mises, Cassel and Dr. Hayek are full of statements which could be cited in support of the view which I am discussing.

may come and go, Economics, as the science of scarce means, can go on for ever.

12. It is not my purpose to discuss the point in detail or show the insignificance to which econmic science will reduce itself if it is conceded. It is enough for me to state that though scarcity may be the curse from which there is no escape, and what Professor Robbins calls ' tragic necessities of choice ' have to be faced in spite of the abundance which science has made available, the cardinal point has to be borne in mind that we as economists are not interested in scarce means as such and their distribution between competing ends, but in human reactions which the process of distribution involves, of social behaviour which is conditioned by a set of social institutions under which the distribution of means between ends is carried out. It is these reactions which are the subject-matter of our study and not the scarce means and their distribution. The reactions are not only not independent of their social setting, but are in a very large measure determined by them. They are both the cause and the result of human relations—they are the stuff out of which society in its economic aspect is made and the significance of Economics, as of all social studies, is derived from this network of human relations. To deny this fundamental proposition is to reduce Economics to a meaningless abstraction—to make it a kind of Mumbo Jumbo for the performance of senseless mental rites and carrying on learned discussions of no value whatsoever.

13. I may seem to be warming up to my theme a little too fast or in a manner ruled out by the position in which you have done me the honour of placing me. But what I have in my mind when I permit myself the liberty of expressing my feelings freely is that when the world is passing through one of the gravest crises of its history, when almost all the issues on which it is divided are economic, both in content and form, when men are being driven by forces generated by the strains and stresses rooted in economic facts, when the occasion calls for thinking clearly in terms of the realities of to-day and not of the abstractions of the day before yesterday—the abstractions which Bagehot defined in 1891 in his *Physics and Politics* as ' convenient fictions created by the mind for its own purposes '—yes, when occasion calls for thinking clearly and speaking unambiguously, the economist to-day seems to be content, to use John Morley's words, ' to recite the symbols of ancient faith and lift up his voice in the echo of old hope.'[11] The thought and the fact of this scholastic fiddling when all that

[11] John Morley, *Compromise*, p. 91.

is best in life is being reduced to ashes by a fast-spreading fire cannot but be extremely disquieting for anyone who realises the need of the hour and the opportunities which it presents for service and guidance. "Fruitful intellectual activity of the cleverest people," says Professor Lancelot Hogben, "draws its strength from the common knowledge which all of us share. Beyond a certain point clever people can never transcend the limitations of social culture which they inherit. When clever people pride themselves upon their isolation of the social culture which they inherit, one wonders whether they are very clever after all."[12] It is not merely isolation from social heritage, but also from living contact with what Lancelot Hogben calls 'common life of mankind' which causes intellectual sterilization. "When a culture," Hogben goes on to say, "becomes exclusively the plaything of a leisured class, it is becoming a priestcraft. It is destined to end, as does all priestcraft, in superstition." The economists as a class do not belong to the leisured class, but are tending to become the priests of a theory, rather a creed of the leisured classes, and the result is that they are also becoming, in Hogben's words again, 'disdainful of the great task of social education,' and find 'terrifying equations' more stimulating than vital problems of humanity in distress and perhaps in the throes of birth of a new future.

This isolation is not due to intellectual detachment. It is the symbol and result of scholastic attachment, of an excessive love for formulas of a by-gone period of human history. It has to be transcended by creative economic thought. It is one of the essential conditions of bracing ourselves up intellectually to realise vividly that mankind and our people are, in the midst of a confused conflict of many causes, confronted with the imperative necessity of a choice of values. The subject of values is vast and complex. But there are two simple points which are important and need to be stressed. Choice of values has to be made because Economics and Ethics have never been and cannot be dissociated in practice. The view, that in economic speculation they can be, is only an intellectual device to escape inconvenient moral issues. But I am using the word in a different and wider sense. We are face to face with the necessity of this choice not because we have to choose between values in matters of detail, but between different unitary systems, representing different sets of values, or if each co-related group of values is to be taken as one whole, representing different Values as organic

12 Lancelot Hogben, *Mathematics for the Million*, p. 19.

unities. The ideological conflicts now in progress are, it is true, not clear-cut and the differences are accentuated owing to the necessity of gaining cohesion in matters of offence and defence. It is only a man utterly lacking in sense of humour or a blind partisan who sees everything in two colours—black and white. In life there are many shades of differences and they blend into one another by insensible degrees. And yet it does appear to me that Values as unitary systems do present a choice of alternatives to-day and every economist, *as an economist,* has to choose between them. Refusal to make the choice is not compatible with intellectual integrity.

Two Emergent Values.

14. I will naturally be expected to be more concrete and asked whether the Values which I am adverting to are those represented by Fascism and Communism, or if the latter word sounds harsh to many owing to its being taken to mean what are called 'the ideas of Russian brand,' I will say Socialism. Are we economists reduced to the position of choosing between Fascism and Socialism? It is a question which cannot be easily answered for these words are charged with emotions which are aroused and cloud understanding before reason comes into play. I do not want to be evasive and yet I do not want to commit myself to the view that the economist must choose between these two systems or Values. My purpose will be better served by stating specifically the main ingredients of the Values we have to choose from.

15. I must be brief, for I have neither the time nor the inclination to be expatiatory. There are at work forces which are making for peace, international co-operation and freedom for all nations as members of a commonwealth of nations. But these forces cannot be made effective without readjustments of economic relations within each country. These readjustments may take many forms, but their content must be the same everywhere. The masses must be relieved from the necessity of having to wear themselves out in an unremitting struggle for bare existence. They must be given what is called a living wage and security against unemployment, disease and old age. Inequality, which is necessary for functional efficiency, may be permitted; but its range cannot be wide and it should not be a cause of splitting society into what Aldous Huxley calls 'dissimilar universes,' Disraeli's Two Nations. Rights of private property should be severely restricted, and it should neither be

possible for individuals to live on the labour of others nor give them the right to exploit it for their own profit. Production should be subject to social control and the organisation through which it should be carried out must be both efficient anl educative. Money should cease to be power, and aspirants to it should qualify themselves for it by training and be selected for its exercise on merit. All privileges of birth, family and status should be done away with, and men should cease to be cogs in the productive machine. All should count according to the measure of their ability; but there should be no exclusiveness and the object of society should be, through appropriate organs, to create opportunities for unlimited development in an atmosphere of fellowship, freedom of thought and co-operative endeavour. These readjustments are necessary not merely to raise the standard of living of people—to make them, to use Mussolini's words, fat and well-fed—but to provide them with opportunities for creative life on the physical, emotional and mental planes. The changes are inter-dependent and must be carried out as parts of a unifield plan. They embody a new view of life and can lead to a new way of life. In one word, they will give us a different and better social order—a new and higher Value to strive and live for.

16. The alternative Value is negation of these ideals—affirmation of their opposites. According to it war is a divinely ordained institution and peace an unworthy ideal. Community of nations is neither possible nor desirable; and it is the appointed mission of some nations to rule and of others to be ruled; and the nations which are born to rule can vindicate their right only by conquest. Individuals, like nations, can be divided into two classes—rulers and ruled. Rulers are born and not made though they require training for their tasks through membership of the Ruling Party and special institutions. They have to be taught to accept and live up to the obligations of their office. In order that the nation, which must be the highest God of all alike, rulers and ruled, should become strong and irresistible as a military power, the internal organisation of the country should inculcate military virtues of obedience to authority, all dissentients should be stamped out ruthlessly and all minds cast in the same mould. Economic values, according to this view, should be subordinated to the supreme need for national glory and greatness; and competition, so far as it creates divisions and weakens the nation's solidarity, should be checked and, if necessary, suppressed. Equality and freedom are the aspirations of degenerate countries and can have no place in the scheme of life of nations

whose destiny it is to conquer and rule other nations. These changes also form one whole and must be carried out in their entirety. They contain another view of life which claims superiority over all others and is meant to be the basis of a new social order—an order based on authority, obedience, discipline, faith in the nation and its leaders, or rather the Leader. This too can give us a unitary system with virtues, standards and apparatus of its own, and must therefore be reckoned as a Value, in its own right—an intrinsic Value.

17. I should have craved your indulgence before setting forth these common-places of contemporary political and economic literature in the bare, bald and bloodless statements of the two preceding paragraphs. I knew that these statements would weary you, and yet I have used my limited time and taxed your patience in making them because of my desire to be concrete and explicit, and yet avoid the use of the words which I have had in my mind all the time. My reason for doing so is that though the Fascist doctrine is clear and unambiguous and backed by deeds which leave no room for doubt as to its meaning, socialism, except in Soviet Russia, represents tendencies, which though coherent in respect of the goal, is divided and, therefore, hesitant, in respect of the means for achieving it. That accounts for, to use the parlance of popular speech, the unity and effectiveness of the Right and the confusion and divided counsels of the Left. The Popular Front moves are an attempt to give the latter a staying and driving power, but are, as we know, lacking in stability. Fascism is an elaboration and development of the tendencies which were at work before it arose as an organised force in its present form. International trade and international investments meant throughout the 19th cetury, the Golden Age of *Laissez-Faire* and Classical Economics, forced loans, colonial expansion, international intrigues, old diplomacy and the theory of the White Man's Burden—vital facts which had no place in the economists' theory of international trade and comparative costs, but were an integral part of the world economy which was built up during that period. Hitler, Mussolini and their less illustrious colleagues in other countries have only 'shaken out' these implications of the theory in action and given them habitations and a name.

18. The other Value, however, represents a set of tendencies which have partially fructified in a number of countries and in Soviet Russia assumed a definite form, but are not confined to the avowed socialists. They are the conscious and unconscious aspirations of men of goodwill in all countries and may be summed up by saying that they are a yearning for

collective security based on justice within and between nations. We may for the sake of convenience call this set a socialistic or a quasi-socialistic Value; but we have to realise that they are not Socialism. This Value is the background and the inspiration of many eminent men of ideas and action, belonging to different political parties or none. It would be possible to give names of many contemporary distinguished men who are thus actuated. A few, which come readily to me on account of my acquaintance with their point of view, are H. G. Wells, Bertrand Russell, Aldous Huxley, L. T. Hobhouse, J. M. Keynes, J. A. Hobson, L. Madariaga, Alfred Zimmern, Stuart Chase, Romain Rolland, Einstein, Maeterlink, Roosevelt, Masaryk and Mahatma Gandhi, who, by right, belongs to the same galaxy. I mention these names in no particular order and have purposely not included any eminent socialist in the list; but they and a host of other well-known names stand for this Value, which we may call socialistic if we like, but some of these illustrious men are not only not avowed socialists, but are against socialism as a political factor. They all have the same 'ideal postulates' they stand for the same Value.

19. What I am pleading for is that we economists, as economists, have frankly and definitely to choose between this value and the other; and the pose of neutrality is not only empirically insincere but is, as I have said, fatal to the integrity of thought. The choice lies between what Brailsford calls Peace or Property—not Property, to quote Professor Ludwig Von Mises again, 'which is valued as a means for its utility' but 'an absolute value'—'this nimbus' which, according to him, 'Liberalism destroyed as it destroyed all others.'[13] Professor Mises deplores 'the desecration of the idol before which humanity has trembled and feared for thousands of years' and is positive that it cannot be restored to its former position without 'a revision of moral code which can only be carried out when minds are deeply stirred and passions unloosed.'[14] Fascism is carrying out this revision, has stirred minds deeply and unloosed passions. It has, as a matter of fact, become that idol and wants the sacrifice of blood, blood of all who refuse to worship and prostrate themselves before it. Professor Robbins and Dr. Hayek are following Professor Ludwig in his crusade, and one feels like saying that they are in a company which they would not like to be found

13 *Op., Cit.*, p. 512.

14 *Ibid.*, p. 514.

in and know not what they are doing. We must make the choice because otherwise we too will find ourselves working against the forces making for goodwill and justice even though we go on protesting that the economists are neutral as between ends and being scientists must keep unsullied their scientific detachment.

Value as Operative Complex.

20. We are living under the shadow of Munich—'living,' in the words of Anthony Eden, 'dangerously under the constant threat of war.' The Value of which I have just spoken has not only to be the background of economic theory, but must also become 'an operative complex' in the real sense of the phrase. Mr. Chamberlain is proceeding with his appeasement programme and leading with masterly ingenuity Great Britain and France to the altar of Property as 'an absolute value.' Acceptance of the other value, which he is leading the nations away from, makes it necessary for us to give serious thought to the question of what may be called the technique of social change. The events are raising the issue poignantly and throwing a lurid light on the frustration of forces making for peace. The issue, it is well known, finds most of the writers referred to a short while ago and other progressive intellectuals all over the world in a state of philosophic doubt—of groping in a dark night of the soul. On the one hand, the truth, to which Mahatma Gandhi bears testimony by words and his consecrated life, has to be faced that desirable ends cannot and should not be realised by undesirable means. Violence breeds further violence and terror leads to worse terror. If a succession of horrors growing into more terrible horrors is to be averted, the Dead Sea fruit of violence has to be avoided. The state of things in Russia, which, to so many has been a land of hope, has, it is well known, made the doubt more distressing and the dark night ever so much darker.

21. On the other hand it has also to be realised that though 'philosophic doubt,' in the words of Professor Irving Fisher quoted by Professor Lionel Robbins, 'is right and proper, the problems of life cannot and do not wait.'[15] At the moment the problems' refusal to wait is growing more and more insistent. Events are unfolding themselves with a rapidity which leaves us all aghast. Action is urgently called for and philosophic doubt is paralysing activity.

15 Lionel Robbins, *op. cit.*, pp. 125-26.

22. I must admit that I find this state of mind a torture—torture not only from the personal standpoint, but because it makes the reasoning of so many brilliant writers singularly inconclusive when they discuss the *modus operandi* of putting their ideas into effect. It is some solace to know that in the existing circumstances in India the path of necessity is also the path of virtue. But India does not and cannot stand alone. I also admit that ideas are 'more powerful than is commonly understood and the world is ruled by little else.'[16] But time is needed for the 'gradual encroachment' of ideas and at present time is the essence of the matter. When practical men and men in power are 'the slaves of defunct economists' and driven by some malignant fate to conspire against the best human interests, it is hard to have to fix our gaze on some distant future when the forces of light will triumph over those of darkness and the truth shall prevail. Impatience may be a vice, when fundamental issues are at stake; but when the whole future of the world is hanging in the balance, it should be possible to understand the point of view of men who are being driven to violence, in spite of their repugnance to it, in defence of some of life's highest values.

23. A more positive aspect of the same problem is the question of capture and use of power. The Marxists, as we all know, believe in taking the citadel of authority by storm at the right moment and in using it for beneficent purposes. Apart from the question of means and assuming that power will be in the hands of an authority representing the will of the community, we have to recognise that power is necessary for carrying out large-scale economic changes and has to be re-organised. It must, of course, be used for ends other than power, but without it a complex economic society cannot function or be kept going as a self-developing institution. Distrust of the State, and of the bureaucratic methods which it must use, has led to the word 'socialisation' being substituted for 'nationalisation' as a method of the administration of public industries; and even outside Soviet Russia a great deal of useful experience has been gained through the working of the corporations like the Electricity and Transport Boards in England. The problem which deserves serious consideration of the economists is not only the taming of economic power but, as Bertrand Russell has pointed out in his latest book *Power*, the taming of power itself and its distribution among appropriate economic institutions.

[16] J. M. Keynes, *op. cit.*, p. 383.

24. Evolution of these institutions is a task to which the economists have to address themselves. Experience so far gained is limited, and though it shows that the likely line of development is to be exercise of economic authority through autonomous public trusts run by experts engaged in industry and subject to proper control and supervision—the line on which development has taken place also in Soviet Russia—it is not yet quite clear how central control can be combined with reasonable freedom of initiative and flexibility necessary for continuous readjustment, both of which are necessary not only for economic efficiency, but also for the health and progress of society. Now that the end of *Laissez-Faire* is a settled fact, this aspect of the matter assumes paramount importance and its consideration has to be interwoven in the context of economic theory. Civilization being in a state of crisis, we have to include the problem of Value in the scope of our studies, but Value in action requires suitable instruments for the execution of its purposes and those have still to be found.

Position in India.

25. These considerations have an important bearing on our special conditions and problems; and I know that I have not left myself time for dealing with them adequately. But that is not as serious a disadvantage as it might appear. That is so for various reasons. First, we in India, so far as our theoretical apparatus is concerned, are in the same position as the economists elsewhere. Classical or neo-classical Economics is practically the only fare that we provide in our universities for the fast-increasing number of students. Economic theory has not received its due share of attention at our hands; but the attention that it has received has been of a very uncritical character and the newer tendencies in Economics either go unrepresented or are dealt with very superficially. It is the same economic theory that we are feeding upon and all that I have already said about it, applies even with greater force to economic studies in India. Second, India is as much exposed to the blast of world forces as any other country of the world. The shock of their impact is, as a matter of fact, the greater because of our very scanty reserves and our inability to take the necessary measures against it owing to the lack of political power. And third, in India also are at work forces which are changing the whole background of economic theory. A silent revolution is in progress. Antagonisms are unfortunately coming to the fore. The old economic relations are becoming more and more irksome, even odious. Demands

for change are being pressed with increasing earnestness and are being backed by sanctions which it is becoming increasingly difficult to disregard or treat as a passing phase of our national life. A new India is in the making and the old postulates no longer hold good or will cease to hold good before long. For these three reasons my remarks on the need for a change in the economists' outlook are equally applicable to our conditions and problems.

26. And yet there are some differences which call for notice and consideration. Among these the most obvious and important, of course, is that India is not yet a free country. The new constitution has enlarged the sphere of our freedom, or rather has placed our people in a position to become more articulate within its framework. It has also given us the power to introduce economic changes—changes which, even though they do not go to the root of the matter, are becoming an index of the changes that are taking place in the mental make-up of our people. But the new constitution is as much a source of annoyance as an outlet for the expression of pent-up resentments. Federation has still to come and the federation provided for in the new Constitution Act is even in prospect a cause of conflict and will in fact precipitate it. The plea that, owing to the immensity of India's size and the multitudes that it contains, federation is the only safeguard against the fragmentation of India's political life, makes and can make no impression, because the contemplated federation is only a device for providing checks and balances against the forces working for freedom—an apparatus for the consolidation of the British authority and thwarting of progressive elements in the community. India is, by nature more than any other country in the world, meant to be a federation. That is self-evident; but it must be a real, genuine federation and not a mechanism for rallying the reactionary forces of the country.

27. Even if this view, which is the view of all political parties in India, is not correct, the fact that it is the common view augurs ill for the immediate future; and it is of significance to the economists from two points of view. The spirit of the new constitution being what it is, it can only intensify differences and lead to deadlocks. It may, probably will, as it is clear, bring matters to a head and create an atmosphere of political conflict or rather become its cause. Whatever be the issue of the conflict, it will prevent for the time being a dispassionate consideration of economic problems. Everyone of them will, owing to its bearing on the political struggle, be viewed from the political

standpoint. Urgent measures of reform and reconstruction will be held up or mangled owing to their being approached purely from the point of view of the transfer or retention of power. Power politics will dominate practical economics; and if the view that it always does so is taken as valid, frustrations and deadlocks will provide another striking confirmation of the thesis that real or large-scale economic changes make the transfer of political power to the beneficiaries of those changes a condition precedent to their introduction.

28. The other aspect of the same fact which is of vital interest to us is that economic institutions will, owing to the exigencies of political struggle, be designed and administered with political intent. Important economic institutions have always been put to political uses; but when politics becomes a game of winning and defending political power, political function of the economic institutions acquires primary importance. They become weapons in the hands of the party in power and objects of attack for the one that is trying to replace it. In the coming struggle for power in India, this is bound to happen to an increasing degree and the working of the institutions in question will largely depend upon the earnestness of the struggle and its repercussions. This is happening already, but will happen with much greater frequency. Two illustrations in support of this forecast, which will readily occur to all of us, may be given. One is the Federal Railway Authority and the other the Reserve Bank of India. In theory these institutions are autonomous public trusts for the discharge of important economic functions and may be taken as developments in line with the significant developments which are taking place elsewhere, and to which I have referred earlier. But in fact they are the fortresses from which political power is to be maintained and defended.

The Federal Railway Authority is considered necessary for the administration of Railways 'on business principles without being subject to political interference.'[17] We can all agree that politics should be ruled out from the administration of a public utility service like the Railways. But that purpose was largely secured by the separation of the Railway from General Finance in 1924, and the separation remains and will remain. The Railway Board which is the authority for the administration of Railways, also remains and will remain. The Board was reconstituted in 1924 and consists, excepting the Financial

[17] *The J. S. C. Report*, Vol. I, p. 230.

Commissioner, of experts with knowledge and experience of railway working. Duties of the Board are administrative, and it will continue to exercise the same function. Between it and the Federal Member in charge of Transport and Communication is to be interposed another 'executive authority for the regulation, construction and operation of railways' and it is to consist of men 'with experience in commerce, industry, agriculture, finance or administration.' Public servants and railway officials are not eligible for appointment to it. It is to be a body of men without any knowledge of railways and its members will be businessmen, industrialists, bankers, etc.

29. The Federal Government and Legislature will, it is provided, exercise a general control over the railways and lay down the policy; but the Authority will have the right to dispute the character of instructions which it may receive from the Federal Government and 'whether a question is or is not a matter of policy' shall be decided by the Governor-General in his own discretion. It is an accepted principle of political theory and practice that Government decide matters of policy and experts put the decisions into effect. But here is provision for an Authority consisting of businessmen with regard to whom it is said[18] that it is immaterial whether they 'have specialized railway experience or even intimate knowledge of Indian conditions.' What the President and presumably the other members of the Authority are expected, according to the Railway Enquiry Committee, to have is 'fresh and vigorous' mind for dealing with the railway problems. The Railway Enquiry Committee likens the Authority to a Board of Directors. Every Board of Directors is expected to exercise general control and decide matters of policy; but we are to have a Board of Directors who will be responsible for 'regulation, construction and operation of railways,' a body of laymen 'with fresh and vigorous mind' to perform administrative functions through the Chief Commissioner and his colleagues who are to become an 'executive staff' of an executive body. Freshness and vigour of mind combined with ignorance of Indian conditions have in the past been regarded as qualifications for being appointed Governor-Generals, Governors and members of the Statutory Commissions. But in the case of the Federal Railway Authority they are to be the qualification for appointment to an administrative body. Railway administration, we have been told, is a highly technical business and must be entrusted to Railway experts. It is a

18 *The Railway Enquiry Committee Report*, 1937, p. 130.

highly technical business; but now from its administration technical men are to be excluded and mental freshness and vigour unspoilt by knowledge and experience are to have free play.

30. The plain truth of the matter, which we all know, is that the Federal Railway Authority is an important piece of political machinery and not ' an important piece of administrative machinery,' as the Joint Select Committee call it. It is to act on political principles in the name and under the cover of business principles. The sound principle of keeping politics and railways apart, of which the Federal Railway Authority is to be the appointed guardian, is violated in its very inception and will be violated in its practical working. Karl Marx writing on the Future Results of British Rule in India on July 22, 1853,[19] when railway construction had just commenced, grew enthusiastic over railways in India as ' truly the forerunners of modern industry.' They would break up, he said, village economy, be used as a means of extracting cotton and other raw materials for British manufacture at low prices and ruin small industries. But he maintained that their regenerative function would be far greater than the destructive one, and that they in time would ' lay down premises for materially mending social conditions.' His forecast was based upon his own philosophy of history which is still debatable; but everyone will agree that the time is ripe for the regenerative function of railways to be given unhampered scope now that the painful process of destruction of the past vestiges is almost complete. But for that it is necessary that the railways should be under Indian control and run exclusively in the interest of India. For that the time is not ripe. The interests of British capital invested in Railways must, for the time being, have precedence over the urgent need of mending materially our social conditions.

The Reserve Bank of India and High Finance.

31. The Federal Railway Authority has still to come, but the Reserve Bank is already there; and it was considered essential to have it established before the inauguration of federation in order ' to leave no room for doubt for ability of India to maintain her financial stability and credit at home or abroad.'[20] The Reserve Bank has to perform functions which, we can all agree, must be discharged by an institution built ' on sure foundations

19 Karl Marx. ' *Letters on India.*' p. 61.

20 *The J. S. C. Report*, Para, 300.

and free from political interference.' The Reserve Bank has been established and is, let us grant, in successful operation. Success is a matter of degree; but very few people will dissent from the view that the working of our banking system has been clarified, if not improved, by the introduction of the Reserve Bank. Amalgamation of the three separate reserves, transfer of note-issue to the Reserve Bank and substitution of the purchase and sale of sterling bills by the Bank for the sale of Council Bills and Reverse Council Bills, as a method of remittance of funds, are sound currency developments. The Bank has done almost next to nothing for agriculture or indigenous banking a service which was considered touch-stone of its success and is powerless to achieve or ensure 'monetary stability' which, according to the preamble of the Reserve Bank Act, is its main function. There are difficulties in the way of realising these objects; and though some of them can, with will and determination, be surmounted, the process will take time. The inability of the Reserve Bank to secure monetary stability is a shortcoming, which all Central Banks suffer from, and is writ large on the facts of recent currency history. Whether the Reserve Bank is or is not in successful operation, it is in operation and it is not my intention to analyse its working in detail.

32. The point which is germane to my argument is that management of currency and exchange and constitution of the Reserve Bank are subjects on which the Federal Legislature has been debarred from taking any material decisions without the previous sanction of the Governor-General;[21] and the justification of this restriction is supposed to be that without it the financial and credit stability of India would be endangered and the political virus introduced in the management of currency and exchange. The desire to protect the currency mechanism from the intrusion of political factors is intelligible; but everyone knows that the rôle which the Central Banks of almost all countries have played in the last ten or twelve years has been a factor of first-rate political importance in international affairs. The Bank of England, the prototype of the Reserve Bank of India, has, since the Hon'ble Mr. Montague Norman took charge of its affairs over eighteen years ago, followed a policy which, to say the least about it, has been dictated by non-currency considerations. Its share in the downfall of the Labour Government in 1931 is a matter

21 *The Government of India Act*, 1935. S. 153.

of common knowledge, and Dr. Hugh Dalton[22] has told us that the Hon'ble Mr. Montague Norman has been following a foreign policy of his own independent of and at times at variance with the foreign policy of the Government in Great Britain. Professor Harold Laski often speaks of the assumption of his office in 1920 by Montague Norman as the second Norman Conquest of England, the first having taken place in 1066 A.D. The point need not be laboured. The connection of high finance with high politics is not a matter of accident or fortuitous concourse of events. It is an integral part of the existing regime. The matters of detail are governed by canons of financial propriety; but the matters of real moment are decided by 'invisible factors' with which 'all business and credit situations,' according to the Federal Reserve Board of the U.S.A. 'are charged.'[23] These factors are, in the words of the Board, 'elusive and cannot be fitted into any mechanical formula.' That they are, and in a sense which is not implied in the opinion of the Board; but they are nevertheless real and powerful and controlled by, to quote exceedingly appropriate words of Thorstein Veblen 'those massive vested interests that move obscurely in the background of the market.'[24]

33. These elusive factors have always moved obscurely in the background of the Indian currency history and are now more

22 Dr. Hugh Dalton, who was Foreign Under-Secretary in the Labour Government, and is a well-known economist, speaks of the irresponsibility of financiers both to public authority and public opinion and goes on to say that 'Mr. Montague Norman has come to personify, in our day, this system of irresponsibility.' He tells us of the immense authority which Mr. Norman has exercised over successive Ministers and Chancellors of the Exchequer since his accession to power in 1920 as well as in the City and in the circle of international finance, and adds how wrong and improper it is that Mr. Norman 'should be free to use the immense power which he controls for purposes of private politics.' Mr. Montague Norman according to Dr. Dalton, 'is reputed to cherish, not merely pro-German but pro-Nazi sympathies' and 'has followed firmly a foreign policy of his own which has been in sharp contrast to the series of feeble compromises that has characterised the official British policy.' (Quoted by Dr. Dalton from Mr. Paul Einzig's Montague Norman. *A Study of Financial Statesmanship* which has been explained by Einzig as 'traditional balance of power policy but with economic and financial means.' 'The (official) British foreign policy, under Mr. Henderson,' in the words of Dr. Dalton, was to seek to co-operate with all nations, and to bring them to co-operate with one another and to favour none and to estrange none, to stand clear of all cliques, to work through the League. He had as firmly discarded the balance of power theory, with all its implications, as Montague Norman adhered to it.' (Hugh Dalton. *Practical Socialism for Great Britain*, Chapter XIX).

23 *Tenth Annual Report of the Federal Reserve Board* (1923), p. 32. Quoted by Walter E. Spahr in his *Federal System and the Control of Credit*.

24 Thorstein Veblen. *The Vested Interests*, p. 168.

active than ever. Their immediate objective is to prevent a change of the Rupee Ratio; but that is, of course, a part of their purpose not to relax their hold over the mechanism of currency and exchange in India, which as the J. S. Committee have pointed out in their Report, are all-pervasive factors in the whole economic structure.[25] The working of these factors can be so indicated by discussing the present position of the Rupee Ratio. For an economist, who argues on purely economic premises, it must be very difficult to understand why the Government of India have made and are making such a dead set against the re-opening of the Ratio question. The present Ratio was fixed in 1926 on the assumption, which even at that time was open to question, that the Ratio established parity between Indian and world price-levels. But since then the changes that have taken place make the year 1926 almost pre-History. All countries of the world, great and small, have passed through a series of crises in which the paramount importance of the currency factor has been all too obvious. The countries have gone off gold and yet most of them have increased enormously their Gold Reserves, the indices of value of the Gold Reserves of the three most important countries, *viz.*, United Kingdom, the U.S.A. and France for 1937 at market price being 567, 327 and 182 respectively (1929=100);[26] and they among themselves control 78 per cent of the total gold reserves in the world as compared with 64 per cent in 1929. All currencies of the world have been depreciated, and each self-governing country has determined the new ratio in the light of its own needs and circumstances; and in most cases depreciation has varied from nearly 40 to 66 per cent. During this period the whole currency theory and practice have been radically changed. Stability of exchange has ceased to be the main or all-important object of currency policy.[27] Extensive and intensive

25 *The J. S. C. Report*, Para, 300.

26 The League of Nations. *World Economic Survey*, pp. 94 and 96.

27 "In 1920," says the author of the latest *World Economic Survey*, 'the main object of the monetary policy was to preserve the gold value of each country's currency and to restrict currency whenever gold was flowing out of the country; and it was recognised that it was incompatible with this objective to adopt an expansive monetary policy in order to reduce unemployment if, at the same time, prices and money incomes were falling in other countries. But, at present, in the absence of rigid exchange stability of the old gold standard, most countries would concentrate on monetary arrangements to prevent economic activity rather than on the prevention of every external depreciation of the currency. (*World Economic Survey* 1937-38, p. 123). Most countries may, but not India, or rather the Government of India, for the two, we know, are not the same. The Government of India

measures of exchange control have been introduced, each country has become autonomous in a large measure in matters of currency and the world price-level has, on that account, been disrupted and has practically ceased to exist.

34. We have also been affected I was going to say, afflicted —by these changes. We have gone off gold, our currency has been depreciated to the same extent as sterling, *i.e.*, by nearly 40 per cent. The course of exchange during this period has been almost identical with the course of sterling ratios.[28] While the ratios of central gold and foreign assets of almost all countries to sight liabilities have increased (the exceptions being countries like Italy, Japan, Bolivia which have dissipated their reserves to meet military situations of their own making) and in some cases increased substantially,[29] India by the end of 1936 had lost nearly 8 per cent of her currency reserve, in 1937-38 the Reserve Bank had to draw upon the sterling reserve to the extent of 12 million[30] owing to the shortage of sterling bills and from June 1937 to September 1938 our sterling assets have been reduced by over Rs. 33·4 crores from Rs. 103·7 crores in June 1937 to Rs. 70·3 crores in September 1938.[31] Our total balance of accounts, including goods, services and government transactions from 1929 to 1936 was $378 million (old U.S. gold)[32] or nearly $529 million at the current rate, and though we have had a favourable balance of accounts in 1936-37 and 1937-38, which for the two years amounted to Rs. 67 crores, the trade figures of the current year are very disquieting,[33] almost alarming, and

are blissfully unaware of the development of the modern monetary theory, and recognise only the pre-war theory as the right theory.

28 *The League of Nations Monetary Review*, 1937 and *The League of Nations Monthly Bulletins.*

29 The ratios of the U.S.A. and United Kingdom increased from 1929 to 1936 from 64·8 to 93·2 and 27·4 to 46·6 per cent respectively.

30 *Reserve Bank of India Report on Currency and Finance*, 1937-38, p. 7.

31 *League of Nations Monthly Bulletin*, October, 1938.

32 The League of Nations, *Balance of Payments* 1936, p. 10.

33 From April to September 1938 the total exports from India show a deficit of Rs. 18·95 or nearly 19 crors, the balance of merchandise trade of India proper has fallen from Rs. 22·71 to 18·41 crors and of India and Burma which, owing to the two forming one currency unit, is more relevant from Rs. 39·18 to Rs. 31·21 crors as compared with the corresponding period in 1937. Export of important commodities like cotton. jute, hides and skins shows a marked decline up to August, 1938, and although some recovery has taken place in September, its causes are such that it is not possible to have much confidence in the future. As a result of this pressure the purchase of sterling by the Reserve Bank of India has fallen from

point to our being landed in a very difficult situation before long. We have been able to stand the strain owing to the phenomenal and entirely unexpected export of gold to the value of Rs. 314 crores in seven years from 1931-32 to 1937-38, but its export has progressively decreased from Rs. 65·52 in 1932-33 to Rs. 16·33 in 1937-38.[34] In the first six months, April to September, of 1938-39, a decrease of 100 lacs was registered and amounted to Rs. 8·41 lacs.[35] In spite of the higher prices of gold, it is fairly clear that Indian exchange cannot count indefinitely upon support from this adventitious source.

35. India is a passive member of the sterling block by virtue of her being a passive member of the British Empire. This membership is in a sense an advantage and a necessity on account of our dealings being mostly with the United Kingdom and the sterling-block countries and comparative steadiness of sterling. But the other members of the sterling block have retained their freedom to vary their ratio and currency policy in accordance with their own interests and needs; and the fact of having linked their currency with sterling has not meant their following the pace of depreciation set up by Great Britain or being otherwise bound by her currency policy. For example, taking four of the thirteen countries of this group, *viz.*, Australia, New Zealand, Denmark and Norway—two British Empire and two non-British Empire countries—the gold value of their currencies in October 1938 was 46·5, 46·8, 47·3 and 53·2[36] per cent respectively of the 1929 parity compared with 58·3 and 57·8 per cent of the United Kingdom and India; and throughout this period their rates have followed an independent course and been determined by their unfettered choice. The value of sterling, like every other rate of exchange, has been determined by a variety of factors. Some of them have been of a most fitful character, for the rate has been affected by large-scale speculative movements of 'hot' money, short-term funds, and those of 'funk' money, funds expatriated and

Rs. 19 crors in the first six months of 1936-37 and Rs. 8·78 crors in the same period in 1937-38 to only Rs. 2·57 crors in 1938-39; and the result, as already stated, is that sterling assets have, since January 1937, been reduced by over Rs. 83·4 crors. The position is truly disquieting and complacency in face of it shows an incomprehensible disregard of the vital interests of the country.

[34] *The Reserve Bank of India Report on Currency and Finance* 1937-38, p. 28-29.

[35] *Business Conditions in India*, September, 1938, p. 385.

[36] *The League of Nations, Monetary Review*, 1937. Table II, and *League of Nations Monthly Bulletin*, October, 1938.

repatriated owing to the political and social atmosphere being more or less uncongenial to the moneyed classes, international agreements and disagreements and obscure movements of the hidden reserves, which have become such a common and important feature of the currency systems since 1929 and are called Exchange Equalisation Accounts. Sterling has adjusted itself, or rather been adjusted, to these changes and depreciated by gradual steps; but the Rupee has had to follow whatever course has been set for it by the movements of the Sterling Rate. It would have been surprising if, in the midst of these changes and the changes of the currents of international trade, the purchasing-power parity of our currency had not been upset, even if at the beginning the 1s. 6d. Rate did represent a position of equilibrium.

36. Purchasing-power parity or its absence cannot be posited with complete assurance owing to the difficulty of expressing it precisely; but such indications as are available do go to show that the Rupee is not in a state of equilibrium at present. A calculation by the League of Nations Secretariat shows that in 1937[37] of the thirty-one countries, whose purchasing-power parities were assessed, disequilibrium in the case of India, with one exception, *i.e.*, Peru, was the greatest; and indices of prices up to September 1938 show that the position has not been materially affected since the above calculation was made. Indices of a few countries may be given for illustration. The indices of U. K., U. S. A., Japan, Germany, France and India are:—85·1, 85·8, 114·6, 81·3, 115·3, and 66·7[38] respectively (1929=100). In 1932 when prices were almost the lowest, the corresponding indices of the same countries were 74·9, 68·0, 73·3, 68·2, and 64·5.[39] These indices have their limitations, and the various measures adopted in recent years by various countries to secure independence from world factors in currency matters have made international comparison even more difficult; but if they mean anything at all, it is that in comparison with the countries which are most important from the standpoint of our international trade, the prices in India are the lowest and, therefore, disequilibrium of the Rupee is the greatest. According to the calculation cited above, gold prices in India were 76 per cent of gold prices in the United Kingdom. The disparity would

37 *The League of Nations Monetary Review*, 1937, p. 38.

38 *Monthly Bulletin of the League of Nations*, October, 1938.

39 The League of Nations *World Production and Prices*, 1937-38. Appendix IV, Table I.

probably now be greater. As I have said, it would be surprising, almost miraculous, if it were otherwise; for during a period in which the world has known more profound changes in currency and exchange than any other period the same duration in currency history, while the rate of exchange of every other country has been determined by the pressure of events and the steps taken to meet them, that of Sterling, by masterly manoeuvres in response to an ever-changing situation but without regard for the interests of any country except the United Kingdom itself, the Rupee ratio has followed Sterling in a state of helpless subservience.

37. I have taken some time in dealing with the Ratio in spite of the fact that discussion of individual problems is excluded by the title of my Address, because the case for the revaluation of the Rupee seems to me to be so strong and convincing that from a purely economic standpoint it seems, as I have said above, to be unintelligible how the currency authorities in India, *i.e.*, the Finance Member, can continue to turn a deaf ear to all the representations which have been made for the investigation of the question by a competent committee or commission. Importance of the monetary factor in India, as in every other country, is greatly exaggerated. Low prices in India are not merely due to the Rupee ratio having been pegged too high; and the reduction of its value by 12½ per cent., *i. e.*, devaluation of the Rupee to 1s. 4d., will not automatically bring about a corresponding rise of prices. The experience of a number of countries, particularly the U. S. A., in which the Dollar was depreciated in 1934 specifically for raising prices, shows that there is no direct relation between depreciation of the exchange and rise of prices, and the latter does not follow the former as a matter of course. This is the lesson of experience and teaching of the modern currency theory. But the Ratio is given the importance it is as a cause of the present evil of low prices and the resultant stagnation of economic life in popular presentations of the case for the 1s. 4d. Ratio because in controversies balance of thought and expression is a handicap, but more because of the utter irresponsiveness of the Government of India to the demand of Indian public opinion and their seeming unawareness of the gravity of the situation.

38. But it is not likely that they are really unaware of the dangers that lie ahead. In currency matters the Government of India have never been a free agent. Our currency policy has been directed by our masters who have no acknowledged place in the constitutional arrangements of India. They have always

particularly since 1893—directed our currency system from behind the throne. Their will has been and is supreme. The Reserve Bank of India is and will be an instrument of their will and special responsibility of the Governor General in respect of currency and exchange is not a safeguard against the inexperience of the responsible Indian ministers or for leaving no doubt regarding the stability of credit or finance of India. It is a means of continuing the directive control of the City of London—the one-square mile mighty Power Station from which are controlled and operated its live wires ramifying in all parts of its far-flung empire, an empire which is by no means co-terminous with the British Empire over our currency system, the massive forces which are moving obscurely behind the whole Indian scene, but particularly behind the currency and exchange situation of our country.[40]

39. The Federal Railway Authority and the Reserve Bank of India are, in the name of freedom from political interference, to be permeated with a political purpose which will condition their practical working more than any other single factor. They are important and will control key positions of Indian economic life; but the whole economic situation is, we have to remember, charged, with the same elusive factors. Things are not what they seem and any economist who takes them at their face value is bound to miss the inwardness of the processes at work and their results. In crises the political functions of economic factors, which are ordinarily implicit, become, as I have said already, explicit and operative. That is happening all over the world and in India, owing to our special conditions, their importance is greater and not less.

New Strains and Stresses in India.

40. We have to take this fact into account; but this is not the only fact that matters. The new India in the making is developing internal strains and stresses of its own which too are

[40] Dr. Hugh Dalton, in the book cited above, says "One of the catchwords used by the defenders of the present system is that there should be no 'politics' in banking. But this is an impossibility. For the banks and other financial institutions pursue policies of their own and their acts profoundly influence, for good or ill, our economic life often, as recent experience shows, for ill. The choice before us is not between politics or no politics but between public politics and private politics." (*Op. cit.*, p. 186.) In India also the choice is the same with this essential difference that public politics in India is either British public politics or Indian public politics, and the Reserve Bank in India is intended to be an instrument of both British private and public politics.

momentous in their significance and consequences. They do not differ essentially from those which I have just been speaking of, but they are of special interest because they arise from the structure of our own economic life and, therefore, deserve even a more serious consideration. In the last few years there has taken place what may be called broadening of our social horizon, and as a result thereof we have realized that 'great poverty and misery of the Indian people is,' to quote from the resolution passed by the All India Congress Committee in 1929, 'due not only to foreign exploitation of India but also to the economic structure of society which the alien rulers support in order that exploitation might continue.' That the alien rulers support this exploitation makes the fact of exploitation of our people by a small section of our own people a part of the whole process that is in progress; but that does not change the fact that in order 'to remove this poverty and misery it is,' in the words of the same Resolution, 'necessary to make revolutionary changes in the present economic and social structure of society.' The possibility of making these changes is, we know, partly inhibited by our lack of political freedom; but we also know that these changes by their very nature bring us up against the inertia of ages, vertical and horizontal divisions of social life and inherent difficulty of carrying out large-scale changes, and therefore cannot be introduced without very disturbing re-adjustments. Re-aujustments will, of course, take time if they are to be introduced in their entirety, and we have not yet started the process; but at present there are taking place mental changes which are a great eye-opener and reveal the enormity of the task that lies ahead of us and set up a strain which must be the new background of creative economic thought in this country.

41. These strains can best be illustrated by the agrarian situation which has arisen in the different Provinces owing to the necessity of their autonomous Governments giving some measure of relief to the much distressed peasantry of India. The necessity has become imperative because of the devastating fall of prices which in this country has been greater than in most other countries and the incidence of which has fallen with such severity upon a people almost without any reserves but the complicated system of land tenures, which had grown up in India in the 19th century as a byproduct of the British genius for empirical action without thought of its less obvious consequences, had, long before the prices crashed, produced a situation full of ominous possibilities, which only awaited a touch of calamity to have its implications shaken out. It is

a sad reflection to have to recall that very few Indian leaders and even serious students of our national problems appreciated the essentials of the situation or did anything to mitigate its intensity.

42. They, if I may say so without any disparagement of their work were hardly aware that it existed. The Indian National Congress from 1885 to 1914 passed resolutions in favour of extending Permanent or Quasi-Permanent settlement to the whole of India; and it was left to the exponents of the official view to point out that in the Provinces in which settlement was permanent, rack-renting and oppression of the tenantry was most common and at its worst. The official spokesmen did know or should have known that in the temporarily settled Provinces also there was rack-renting and oppression which was not a bit less severe than in the permanently-settled Provinces, and exploitation of the cultivators was entirely due to the British having created a new rentier class for their own administrative convenience and advantage and had nothing to do with the state-revenue demand having or not having been fixed in perpetuity. But the fact remains that for a long time the Indian public leaders showed a lack of perspective in dealing with the agrarian problems which can only be explained by their concentration upon poverty and misery of the masses as a political grievance and not a fundamental fact of the economic structure in India. But the pressure of circumstances has changed the whole view-point and made a new approach to the agrarian situation necessary and inevitable.

43. The change has occurred and is working itself out in the measures of relief which have been initiated by the new Provincial Governments. The measures themselves are avowedly first-aid measures and only intended to ease the situation. But the fact that they have aroused strong feelings and in some cases filled the rentier class with dismay shows that the latter realise that the measures represent only an initial stage of a big change, and what is at stake, in prospect though not in fact, is their whole position in social economy. This dismay, so far as it is real and not stimulated for the purpose of party warfare, is due not to the measures being too radical but to the situation which they are meant to alleviate being unjustifiable. This class knows that the equilibrium which is necessary to keep them on the top and in possession of their income, privileges and status, is very unstable because its very base is rotten and cannot endure even mild shocks. Their knowledge of what has happened and is happening in much less unstable situations elsewhere fills them

with grave misgivings amounting almost to irrational fear. Fear is a bad teacher, and cannot give understanding or foresight. The results are a defensive rationalisation of an indefensible position on their part and a millitant mentality. These developments are no contributions to the solution of the problem and will intensify further an already tense situation.

44. The measures, that have already been introduced or are under contemplation, do not as I have said, make any radical difference in the situation. Their importance lies to the Governments concerned in retaining the confidence of the newly-enfranchised voters and in their being portents. They really seek to get rid of some of the worst evils which should never have been tolerated—the evils like illegal exactions, forced labour, arbitrary powers with which the landlords were invested for the realization of their dues, vexatious and unjust methods of the appraisal of kind rents, denial to the tenants of the rights to plant or cut trees or enjoy their fruits, mutation-fees for the transfer of holdings, the landlords' right of pre-emption and selling of the holdings at ridiculously low rates for the realization of the arrears of rent. They also provide some relief from the incidence of rents which are excessively high, or have become so owing to the fall of prices, reduce the rate of interest charged for the arrears of rent and grant a partial remission of the liabilities which have been accumulated owing to the inability of the cultivator to meet their dues in the depression period.

45. All these measures of relief are not found in every new Tenancy Act, and each Province has introduced some minor variants in its tenancy legislation on account of the peculiarities of its system of land-tenure; but the general trend of agrarian reform is almost the same all over the country. In some Provinces, *e.g.*, Madras, the whole agrarian problem is still at the investigation stage, and in the U.P. the Government is in the process of carrying its programme of agrarian reform through the legislature. One feature of the U.P. Bill, which has engendered the greatest heat, is the proposal to grant hereditary rights to the cultivators on Sir lands, lands which were meant to be home-farms for the investment of capital and the application of the more progressive methods of cultivation, but which have in practice been used for rack-renting. This provision, if enacted, will make a change in theory and practice of some real importance. The Governments of Bihar and Bengal—the provinces in which the same evil exists, have done nothing to curtail this rack-renting power of the landlord, though the Bihar

Government has provided for the restoration of the tenants' holding which had passed into the possession of landlords since 1929. Apart from the U.P. measure, the fate of which has still to be settled, all measures of tenancy reform have as their aim either mitigation of some of the most oppressive features of land-tenures or grant of relief which could not have been put off much longer because of the position having become almost intolerable in several respects.

46. The Provincial Governments are entitled to their meed of praise for having done what they have been able to do; and it is quite clear that but for their having a larger measure of popular support, it would have been impossible for them to introduce even these measures. They, in some cases, do not go far enough and in others fall short of even the immediate needs of the situation; but making allowance for these facts, it is undeniably true that taken together they mark an important land-mark in the agrarian history of India. But if we take a long view of the situation, the recent agrarian reforms do not materially affect our rural economy and even in their underlying conception, remedy of its really important evils finds no place. The real evils of our rural economy are (*a*) the existence of large rentier class without any social function or utility; (*b*) sub-infeudation due to the existence of proprietary or sub-proprietary rights, as a result of the rent-collecting rights having been transmitted to, in some cases, a chain of under-proprietors, of course, at each step for a consideration, in order to escape the trouble and expenses of rent-realization, and also of subletting by tenants having fixity of tenure; (*c*) uneconomic holdings of peasant proprietors and protected tenants; (*d*) the existence of a large and growing class of tenants-at-will and landless labourers who suffer from insecurity, exploitation and sweating of the worst kind. There are other serious evils, but these are the evils which are due to the existing system of land-tenure and are the cause of other numerous well-known evils. I do not mention here the anomalies and inequities of the land-revenue system for they are a different, though very closely related, aspect of our land question.

47. These four classes of people are caught in a network of economic relations which are our complicated system of land-tenure—a network which is the most formidable difficulty in the way of rural reconstruction in the real sense of the word. The relations are not only complicated but inter-laced, the same individual being rentier, tenant and labourer at different times or at the same time.

48. The measures so far taken or in contemplation practically do not and cannot change these relations for the better. Landlords, as is wellknown, range from landed magnates with an income, which most of the ruling princes can envy, to the proprietors of tiny estates, whose lot is no better than that of poor tenants. The one thing that they and also class (b), who belong to the rentiers category, have in common, is that they live on the labour of tillers of the soil and are not making, and in most cases cannot make, any contribution to the output of agricultural economy. They are a sterile or unproductive class by tradition, choice and force of circumstances. They all have the outlook of property owning classes, and their property consists not of land, but what Veblen calls 'intangible assets'—the right to levy tribute on the real producers. They are our most important vested interest in the sense in which Veblen defines the phrase. 'A vested interest' according to him 'is a legitimate right to get something for nothing, usually a prescriptive right to an income which is secured by controlling the traffic at one point or another.'[41]

49. The point at which this class controls the traffic, is the most vital in our economic life—the point at which land, our most important instrument of production—is brought under cultivation. Their right to income is legitimate, for society has recognised it and recognises it still; but it is based upon prescription and not on social function or utility. And most of them, almost all of them, cannot now change their rôle. They are functionless, and on account of the existence of tenancy rights, must remain functionless. Grant of more occupancy rights and withdrawal of the right of pre-emption by recent legislation are necessary measures of protection; but they are also measures which make this class more unproductive than ever. These changes are based upon the view that rentiers they are and rentiers they shall remain. The view is supported by the present and past facts; but also excludes them from becoming 'captains of agriculture'—enterpreneurs for the development of agriculture.

It seals their fate by condemning them to social futility, which they themselves have prized and still prize as their distinctive privilege, but is making their position more and more invidious and may become their distinctive liability. J. M. Keynes is of opinion, which I regard definitely mistaken, that 'euthanasia of the rentier' can be brought about by reduction

41 Thorstein Veblen. *The Vested Interests*, pp. 161-62.

of the rate of interest.[42] Whether his opinion is right or wrong in its application to conditions in the highly industrialized countries, it is certain that the rentier in India need have no fear of Keynes' recipe for his elimination.

50. The other fact, besides prescription, which makes the position of the rentiers in India secure for the time being, is that a vast majority of rentiers are men with very small income. The word landlord brings before our mind's eye a picture of men living in palatial houses, spending lavishly and often unwisely and exercising feudal authority over thousands of men because of their ownership of lacs of acres. There are landlords in the Provinces of Bengal, Bihar and U.P., whose life is reflected in this mental picture; but their number is comparatively small and a vast majority of landlords are men of very limited means. In Bengal, for example, there are 35 million landed estates, and if it is assumed that each estate is a separate social unit, *i.e.*, means one landlord—an assumption which is not always true—the average income of a landlord amounts to Rs. 30 a year in that province, and the number of landlords whose income is not less than Rs. 12,000 is supposed to be only 650.[43] These figures are in some ways doubtful, but will do for illustrating the position under review here. The position in the other two Provinces is essentially the same. Landlords can be counted in millions, but their individual incomes, except in the case of a small minority, do not come up to the level of decent competence according to even the Indian standard. In the other provinces landlords, where they exist, mostly belong to this class. The poor landlords, like 'the poor whites,' are more jealous of their prescriptive rights than the rich landlords; but they are also more sterile than the latter. Not only tradition, choice and occupancy rights of the tenants are against their becoming productive members of the community, but also their utter lack of resources. They are poor because their small estates are their only means of livelihood; and they can have no useful function because they are poor and otherwise inhibited. They present a problem of their own in our national economy compared with which the Russian problem of the Kulaks was comparatively

42 J. M. Keynes, *The General Theory of Employment, Interest and Money*, p. 376.

43 It is no wonder that we have landlords in India whose average income is only Rs. 30 p. a. when we have States, which in the words of the Butler Committee are 'minute holdings which yield income no greater than annual income of an ordinary artizan.' They are all interesting historical survivals, but like all historical survivals, are in the way of progress and development.

simple. The discrimination in their favour which is a common feature of the recent fiscal and agrarian legislation of the Provinces, is a practical necessity. But the greatest safeguard of the landlords as a class against expropriietary legislation lies in this vast number of the poor landlords and is a measure of the magnitude of the agrarian problem.

51. Of the other two classes it is not necessary for me to say much in this context. Agricultural labourers mostly belong to the depressed classes, but their number is being swelled[44] by the increase of population, absence of any other alternative means of employment and almost the whole cultivated area of the country being already under cultivation. They get starvation wages and are employed only in certain seasons of the year. Nothing has been done for them and within the framework of the present agricultural economy nothing can be done for them. The pressure of their number accounts for the imperious hunger for land, enhances the value of the small holdings of the peasant proprietors and protected tenants but also weakens their bargaining position as against the landlords and makes sub-letting a very strong temptation. The agricultural labourer stands lowest in the economic scale and is to-day the forgotten man, because he has no vote and is without an organization and a voice. But he is potentially the most disturbing factor in Indian economic life and will soon have to be reckoned with.

52. Of the third class of agricultural population all that can be said is that they are not only the mainstay of agriculture but the backbone of our whole economic life. Theirs is a deficit economy and the fall of prices has brought the fact to the fore. They are now being wooed by political parties and are becoming conscious of both their power and sheer want. They are the employers of agricultural labourers, and not only the rentiers live on their labour, but the State, professional and mercantile classes are practically supported by them. Agrarian legislation to which I have just referred, has been conceived and enacted in order to give them relief. The relief so far granted is small and cannot change their deficit economy into surplus economy. Improvement of agricultural technique, marketing facilities etc., will help, but not materially; for the limiting factor of the situation is smallness of the holdings, which through sub-division

44 According to the 1931 Census the proportion of landless labourers has increased in the decade 1921—31 from 291 to 407 per 1,000 of persons, whose occupation was cultivation; and since 1901 the number, it appears from such figures as are available, has increased from 18·69 to 36·34 millions.

are growing progressively smaller. Strife in the countryside, of which we are becoming increasingly and painfully aware, has been started because the need for relief for the class is being acutely felt by itself and others. It will want more relief but has no margin for giving relief to the agricultural labourers below it, who are, as stated before, nearly as numerous as this class; and whatever further relief it can secure must be at the expense of the rentiers above or the State. It, therefore, is the most disturbing factor at present and has made a position of unstable equilibrium more unstable.

53. It is clear that equilibrium of social forces in our villages has all the possibilities of developing into serious dis-equilibrium. Recent tenancy legislation has not created disharmonies. It has brought them to the surface, and has initiated a process which does not hold out a promise of the different interests being harmonised. If in India the problem of agriculture is how to grow two blades where one is grown at present, the solution of the problem is, it appears, going to be rendered increasingly difficult by the growing difficulties of adjusting these complicated human relations, which have come into being mainly owing to the indifference of the British to more remote consequences of their policies and the increase of population.

Industrialization—A Mixed Good.

54. The complicated system of land-tenure and attempts so far made to mitigate its most obtrusive defects are a very important cause of the new stresses in our internal economy. There are, however, also stresses caused by other factors which I have no time to deal with. If I had, I would have spoken at greater length on industrialization and its results. We are still discussing the question of industrialization versus handicrafts. But the question is no longer an open one. It is not for us to choose or not to choose to industrialise our country Industrialism, in spite of the fact that less than one hundredth part of our population is employed in organized industries, is already there, not merely because of the large industries established in India, but more because railways and steamships have made the forces of industrialism[45] a vital factor in the

[45] Industrialism we have to remember does not merely consist of power and machines. It is an economic system in which power and machines are used. Dr. Meghnad Saha, who has been advocating earnestly large-scale industrialization of the country, overlooks these all-important facts and uses some rather

remotest villages of India; and its financial counterpart—currency, exchange and banking—has made every agriculturist who sells in the market, howsoever small his turnover, an unconscious and helpless sport of these forces. It is because railways, currency and shipping are the life-lines of these forces that we cannot be entrusted with the management of railways and currency and are not allowed to reserve even our coastal traffic for our own merchantile marine. Yes, industrialism is there. From the standpoint of the world, as Aldous Huxley has said, "we cannot get rid of machinery for the simple reason that in getting rid of it, we should have to get rid of that moiety of the human race whose existence on this planet has been made possible only by the existence of machines."[46] He could have added that machines are really human mind at work through the control of motive and mechanical powers, and it is not only machines that have to be got rid of but a complicated set of human relations and new habits of thought and action which have grown up with and around them.

55. In India industrialization is necessary to save people from the grovelling misery which is their lot. But for that industrialism must be mastered. That we cannot do in the existing circumstances; but, on that account, we cannot escape it. We have to do what we can to develop it with a conscious purpose and in the interest of the country. From that point of view the recent move under the Congress aegis to develop large industries is to be welcomed. But when we attempt to do so, we will be made aware of certain cardinal facts which we often ignore. First among them is that our scope for industrialization is limited by the extent of our home-market, which in its turn

common-place arguments in support of his views. What we need is not only industrialization but also "A Government which will" in the words of Charlie Chaplin, whom he quotes in an article on the subject of industrialization contributed by him in a recent number of the *Modern Review*, "organize industrial work on modern lines and also see to it that every individual gets proper work and gets also proper food, clothing and housing." It is because India cannot get a Government of the kind at present that industrialism in India will neither be an unmixed good nor solves the economic problem of India; and for the same reasons his 'neo-technic' men in Germany, England and America are making, in spite of the enormous development of their power resources, such a sorry mess of their own countries and the world. Dr. Meghnad Saha is a great scientist, but is entirely dominated by 'neo-technic' theories which are the theories of mechanics and not of the world we are living in. The great scientist, I am afraid, has had to neglect his social studies on account of his pre-occupation with his scientific researches, which have, as is well-known, brought him and the country great credit.

46 Aldous Huxley. *Means and Ends*, p. 158.

is limited, because, to use Keynes' new phrase, 'aggregate effective demand' or the total purchasing power of our people is very small; and owing to the cramping effect of the agrarian economic relations cannot be materially increased. India is already almost industrially self-sufficient for a number of important staple commodities, produces quite a considerable proportion of some others, and the possibilities of further industrial development, though by no means exhausted, are circumscribed by this important factor. Our industrial production must not outrun demand and it will if the limitations of market are not borne in mind in the plans of industrialization.

56. The other relevant fact which has to be considered is that industrialization is not a cure for unemployment. It will probably become its cause. That is so for two reasons. First, industrialization will expose our small industries to a severer competition and throw a larger number of the artizans out of work. That is an incontestable fact, and to the artizan, who will find his occupation gone, the fact that the unemployment may be due to the onset of competition of Swadeshi industry will not and cannot make any difference. Secondly, industrialization means rationalization, mechanization to the utmost limit, which will be speeded up by the demand for higher wages.[47] That has already happened in cotton and iron industries and railway workshops, and will be further extended. That means that new industries will employ comparatively fewer men and the expansion of old

47 This aspect of the matter was referred to by Mr. G. D. Birla, our well-known Marwari industrialist, in his speech at the annual meeting of the All-India Organization of the Indian Employers held at Delhi on April 4, 1938. He warned the Indian public against the dangers of always pressing for increase of wages of the workers in these words: "So far India has lagged behind the other countries in respect of rationalization and labour-saving devices. Once the wages are put unduly high, in extreme disparity with rural wages, labour-saving devices will be resorted to. The country should nat fail to take note of this aspect of the question. We have to choose between higher wages with less employment and moderate wages with more employment."

Moderate wages, which are more or less related to rural wages, will mean in India starvation wages and it will be a profound mistake to build up our industries with or even without state-aid on the starvation of the workers. Our whole economic system is based upon sweated labour of the peasant and the worker; but we cannot accept it as an inevitable state of things and let the industrialist exploit the workers on the ground that higher wages would mean less employment. That they will; but industrial employment is, as stated in the text, going to be such a small fraction of the total employment that we must not be deterred from taking protective measures for the workers on that account. Let us have less industrial employment, but let us see to it that it does not involve the payment of starvation wages.

industries will not mean corresponding increase of employment.[48] We will be deluding ourselves if we count upon industrialization to solve our problem of the general and middle-class unemployment. These considerations suggest two others. We must develop our industries, but must not throw many more people out of work than we can find work for in the new industries without giving careful thought to their position. So far as it lies in us, we must avoid, as Sismondi told us in the first quarter of the 19th century, the frightful amount of suffering that is caused by a new equilibrium being established by industrialism, and permit the generation that has become obsolete either to pass away or be socially provided for.[49] Further, if we are going to develop industries through state-aid and guarantee prices and profits, we must also act upon the principle of guaranteeing minimum wages and living conditions to our workers. That will mean that fewer men will be employed and rationalization will be pushed farther; but that should not deter us from insisting upon a fair deal for the worker. The number of those, whom the industrialisation that is possible at present, is going to employ, will in any case be a very small fraction of our population. It will be better to make the number a little smaller, if necessary, to ensure better wages and living conditions for those who actually are employed. Guaranteed profits and prices must, it may be repeated, have as their corollary guaranteed wages to the workers if the state or public agencies are going to have any hand in the development of industries.[50]

48 This has already happened in the cotton industry. Production of mill-made cotton cloth in India has since 1913-14 increased by more than 300 per cent, but increase in the number of cotton mill operatives has not taken place in the same proportion, and is roughly estimated at 50 to 75 per cent.

49 For example, it appears that the hand-loom weavers will soon have to face severer competition from the Indian mills. The latter can, probably by expanding their production and employing about one lac operatives more at the outside, throw out of work nearly 2·5 million hand-loom weavers. That it is obvious, will be a great disaster and can only be prevented by taking the measures like the one which has been suggested already, *viz.*, prohibiting the mills from weaving cloth of 20 counts and less and getting them to develop the tendency of increasing the production of finer cloth.

50 We have to do for all the protected industries what is being attempted through the new Bihar and U.P. Sugar Industry Control Act. Production of sugar-cane is being regulated, but also the manufacture of sugar; and provision has been made to secure better price for the sugar-cane growers and raise the wages of the workers. Spirit of this Act is right; and though it remains to be seen whether it will be administered in the spirit in which it has been enacted, one result of the Act, which has already been achieved, is that the sugar-cane

57. Industrialism, inevitable as it is in itself, is no solution of the difficult problems which we have to face. It is subjecting the agricultural classes in India to great strain, but itself has also to work under a strain owing to the limiting conditions of agriculture. It is already there, and has, as far as possible, to be brought under control; but the pivot of our economic life is and will remain in the villages until the whole economic structure can be re-shaped. That cannot be done just yet; but if we proceed to develop some of the badly-needed industries like the heavy automobile, and chemical industries, and bear in mind the entire set of conditions under which we are living, we will, in spite of our limitations, be able to make some real advance. In India, as everywhere, the way out is the way forward.

58. The internal and external economies of our national life, which I have been discussing, are inter connected and make these stresses a part of the stresses of the world economy. Fall of prices, which is receiving so much attention at present is both a cause and effect of these stresses and makes the instability of our economic life a phase of the world-wide struggle of powerful forces. Exchange is the point of contact between the internal and external factors and its rate a lever which we can, within limits, use to regulate their reciprocal pressure; but we must understand the real nature of the forces in operation and not exaggerate the effect of the rate of exchange. It is a lever but not the only lever; or the most important one. We must know the real reason why this lever cannot be placed in our hands, through this knowledge get an insight into the working of the massive forces behind the scene and co-relate it to the economic and political factors at home. This is the background against which the economist has to review his economic theories, closely examine his postulates and revise and, if necessary, replace them to get the theory to fit the facts of to-day and not the assumptions 'which' to quote J. M. Keynes perhaps for the sixth time, 'are seldom or never satisfied' and the theory based on which 'cannot solve the problems of the actual world.'[51]

59.[52] The New Statesman, the well-known English Weekly, writing on outbreak of the civil war in Spain on August 1, 1936, made an observation which struck me as very apt indeed. It

grower is getting higher prices. After a period of 16 years of unregulated protection, from the point of view of the producer of raw-materials and the worker, this Act must be considered a new and welcome departure in the application of the policy of protection.

51 *Op., cit.*, p. 378.

52 *The New Statesman and the Nation*,—Vol. XII, No. 284, pp. 147-48.

said that the Spanish War was an event 'with the quality of lightning flash at night, which revealed the European landscape. Across it in the sudden glare one saw the trench lines drawn which had divided us unperceived.' Since August 1936, we have had many such lightning flashes which have revealed the landscape in every country and the world. The trench lines are drawn everywhere, and the divisions, which had remained unperceived, are forcing themselves on the attention of all. No one can be happy about these divisions; but they cannot and will not be ignored. The landscape, which we see in sudden glares, is full of disharmonies and shows a position of dangerous social instability. The student of a social science like Economics who refuses to see the landscape as it is and to examine and understand 'the trench lines drawn' is acting not like a scientific student but a pedant whose love of learning is greater than love of truth, and devotion to tradition greater than devotion to reality.

60. Even if Professor Robbins' view that in economic analysis "the whole structure of 'historico-relative' psychology and institutions has to be taken as given"[53] is correct, we have, in the working of national and international factors, a 'historico-relative situation which with its incipient values must be the data for our economic analysis of the facts of the times. It cannot be left out of account without making our analysis utterly incomplete, inconclusive and unrealistic. Mussolini has told the world that "war alone brings up to its highest tension all human energy and puts the stamp of nobility upon the people who have the courage to meet it."[54] Anticipations of war and its underlying causes have already brought the whole world up to a very high state of tension and produced a situation which rightly understood can be very stimulating and put a stamp of real nobility on all thought and action. This tension is not merely due to incompatibility of temperaments. It is a genesis—a new epoch in the very initial stages of its making. Its real meaning has to be understood and used for the revision of the premises of all thought, including economic thought.

61. J. M. Keynes has told us that the classical theorists resemble Euclidian geometricians in a non-Euclidian world, who discovering that in experience straight lines often meet rebuke the lines for not keeping straight, as the only remedy for the

53 Lionel Robbins, *op. cit.*, p. 94.

54 Benito Mussolini, *The Political and Social Doctrine of Fascism*, p. 11.

unfortunate collisions that occur.[55] The world to-day is becoming more and more non-Euclidian and severe collisions are a matter of every-day occurrence. The air instead of clearing up after the storms becomes more murky and foul. Old accounts are settled and yet the account never gets settled really and finally. In this atmosphere laden with conflicts and the dangers of worse conflicts to come, the only thing to do is to abandon the old axioms and work out new ones. In Economics that involves the necessity not merely of throwing over the postulate, (that is what J. M. Keynes wants us to do) that utility of the wages paid is equal to the disutility of labour put in, but the fundamental postulate of all economic thought that labour is a commodity like all other commodities and has to be treated as such. In plain words, what needs to be done is the substitution of human values for economic values—to realise that economic value is the greatest contradiction in terms and is the cause of most of the tension that there is.

62. In India we have, since the great Mr. Ranade read his famous paper[56] in the Deccan College in 1892, protested against the postulates of classic Economics. Mr. Ranade's essay had both depth and breadth. He quoted with warm approbation J. S. Mill's statement that " there are no practical questions which admit of being decided on economical premises alone " and protested against the absolute character of economic conclusions. But the protest in practice has amounted to demand for protection and the general assumption that economic policy of the British in India is, taking it by and large, not in but against the interest of India. The protest has not gone in vain. It has given us courage to challenge the view which made the Economic Science a hand-maid of private interests and exploitation. But mere protest is a negation; and for constructive thought we need affirmation based upon apprehension of reality. That has been and is lacking still. That is why books on Indian Economics are, in the words of Dr. John Mathai, ' almost invariably digests of official publications dealing with the historical and administrative aspects of Indian economic problems,'[57] and their authors merely purveyors of materials needed by students for passing

55 J. M. Keynes, *op cit.*, p. 16.

56 M. G. Ranade on Indian Political Economy in *Essays on Indian Economics*, pp. 1—42.

57 Dr. *John Mathai's* Presidential Address delivered at the 20th Session of the All-India Economic Conference. *The Indian Journal of Economics*, Vol. XVII, No. 67, p. 625.

university examinations. I know that there are extenuating circumstances for the paucity of constructive economic thought in India; but the times call for an effort to rise above our circumstances and to assert the emancipation of mind from the limitations of our own circumstances and of preconceived ideas.

63. India and the world are passing through what in the words of Ezra Pound, is a 'crisis OF and not IN the system."[58] It is necessary for the economists to rise to the height of the occasion and seek not merely knowledge, but also enlightenment. We in India have not co-related our protest against the absolute conclusions of economic theory to the examination of the theory itself. It is not merely because in India the people are conservative and we have institutions like the caste and joint-family that the conclusions of economic theory are wrong and misleading. It is because the very premises of the theory are open to question and disparity between them and the facts is increasing that their revision is urgently called for. The strains and stresses to which I have referred are greater in India owing to our political position and make the need for emancipation from preconceived ideas all the more paramount. A new outlook in Economics is badly needed everywhere. In this country without it there is no chance of our overcoming our special limitations of circumstances in the country and in the universities.

Academic Studies.

64. I have already exceeded my time; but I would beg of you to bear with me a little longer while I deal briefly with two points arising out of my argument, which are of special interest to the university teachers of Economics. Economics is one of the most popular subjects in Indian Universities. Number of Economics students is rapidly increasing and interest in the subject is also growing. For most of our students Economics is merely an examination subject and they have no other interest in it except to get maximum of marks with minimum of work. That accounts for the pot-boilers being in greater demand than ever, which is a standing temptation to a number of college teachers, who know and could do better, to use their time and ability to meet this demand. It is difficult to blame them for that is perhaps the only kind of economic literature in India which gives good, or rather any, returns. But besides the mass of students who are responsible for the existence of this steriliz-

[58] Ezra Pound, *Guide to Kulchur*, p. 186.

ing demand, there is in every university a small section of students—a section which is steadily growing, who take a more intelligent and vital interest in Economics. To them Economics is the subject of the times—a subject which deals with life's real problems and gives an understanding of underlying causes of the malaise from which the world is suffering.

65. These are the students who are really matter or should matter for the teachers of Economics. The others cannot be neglected. They are 'the aggregate effective demand' for our services, but do not represent 'the real demand' for Economics and its teachers. We have to accept them as a necessary evil, but give our best to the small minority who alone are the fertile soil in which the seeds of thought can be sown and will germinate. The question which we have to ask ourselves is: Are we doing what we should for them? Dr. Cannan thirty-three years ago expressed his concern regarding university students, with warm interest and real intellectual curiosity, who had to suffer 'mental discomfiture owing to the diffusion of effort in devoting attention to ingenious futilities in the pedantries of an academic atmosphere.'[59] "He (the student) wanted," said Dr. Cannan, "bread and the professor has given him stones."[60] Number of students, who want bread, is, as I have said, unfortunately very small in India; but let us be sure that we give to this small but growing section the bread of real stimulus by devoting attention not to 'ingenious futilities' but to the challenging facts of real life, and not the stones of complicated diagrams remote from reality. Diagrams can be very useful; but when they are only a means of intellectual gymnastics, they become the stones which not only do not satisfy the real appetite for the bread of knowledge but also kill it.

60. Economic problems are some of the most soul-stirring problems of the day. What the students want to know is 'not the wonderful way in which the whole civilized world now co-operates in the production of wealth,'[61] but why there is so little co-operation in the world, why the world is suffering from nerve-racking disharmonies which jeopardize its very existence, why there is so much stark want in face of potential abundance, why in every country the vested interests, 'who have legitimate right get something for nothing,' are using their organized strength to make the world not a real co-operative commonwealth

59 W. H. Hunt, *Economist and the Public*, p. 214.

60 Edwin Cannan, *Economic Outlook*, p. 221.

61 *Ibid.*, p. 174.

but an arena in which 'hands of all are against all' and life is degenerating into a meaner and more brutish affair there ever. We cannot satisfy the students' thirst for real knowledge merely by asserting our scientific neutrality, which I have said already, is often not neutrality but real partizanship, but also by facing up to the facts and problems of the actual world and making an earnest attempt to give some real help in answering these questions. But if we are to do that, we have ourselves to see things in their true perspective and understand the real nature of the operative forces of economic life.

Socialism in Universities.

67. The other point which arises out of the argument is the place of socialism in the curricula of university studies. At present it has hardly any place in them. Exclusion of socialistic thought from the universities, almost in every country, is one of the most significant, and I regret to have to say, damaging facts of the history of thought of the 19th and 20th centuries. Here is a movement of economic thought as old as classical Economics. It has had many phases and passed through many stages of evolution. Many schools of socialistic thought have risen, fallen and been resurrected. These schools have differed as violently among themselves as from the school against which they have been in intellectual revolt. Its original anticipations, aspirations and visions have, by experience, need for action, re-adjustment to changing circumstances and fuller understanding, developed into a body of coherent thought with its own premises, standards and conclusions. It, in its threefold aspect of vision of a better world, interpretation of history and theory of action, has become a living movement of great power and promise; and in its march has been compared by one of its relentless critics, to whom it is 'one of the most disastrous blights that have ever affected humanity,' with some of the greatest movements in history like 'the sweep of Christianity over the Roman Empire in the days of the apostles; the conquest of Orient by Islam under the early Caliphs, the rush of the Reformation through Teutonic Europe in the age of Luther and Calvin.'[62] And yet the great centres of learning have virtually gone on as if socialism belonged to the underworld of thought unworthy of recognition by serious students of Economics and, therefore, by great institutions dedicated to the freedom of human spirit.

62 F. J. C. Hearnshaw, *A Survey of Socialism*, p. 4.

68. The cold neglect of socialism by the universities has perhaps done socialism some harm, but it does the universities greater harm. In India socialistic Economics has in the past suffered even from greater neglect than in the West. That is partly due to our desire to emulate the practice of the British and other universities and excel them in orthodoxy, and partly to our political conditions which imposed upon us the necessity of steering clear of all unorthodoxies. The position in this respect is about the same as it was a few years ago.[63] Socialist Economics—and there is such a thing as socialist Economics and it is Economics, howsoever the use of this title may be denied by the more orthodox economists—is still at best merely a foil for explaining the superiority of the orthodox doctrines, though it is more common to leave alone and assume that, thereby, it will remain in the underworld, to which in the estimation of so many it properly belongs, by our withholding from it academic recognition.

69. I need not say that I regard this attitude extremely wrong and harmful from the scientific standpoint. Socialism in India is a new movement but is making rapid progress. It is yet, in my opinion, a portent and not a force, though it is already viewed with great apprehension by the men in authority. But it has come to stay and may become a formative factor of great importance in our national life. The only way to remove its danger—if it is a danger—is to resort to methods in use in Germany, Italy and Japan for suppressing 'dangerous thoughts.' If these are to be ruled out, socialistic thought must be recognised as a new approach to human problems and given its due place in academic studies. Our approach to socialism must, of course, be different from that of the man in the street. Theory of surplus value, economic interpretation of history and the Marxian conception of the state, to take the three most important tenets of socialism—are essentially categories of thought and have, whether they are sound or unsound, to be elucidated with an effort of the mind. Whether we accept or reject them, we have to approach them in a spirit of earnest enquiry and desire to see whether they open some new vistas of thought and throw light on theoretical and practical issues. Our approach to socialism should be mental; but I ought to add that the tendency to take individual proposals out of their context and hold them up to criticism cannot or should not be a part of this approach.

63 This statement is, I know, subject to some exceptions; but they are not material enough to vitiate the truth of my statement.

"Scarcely a single economist of repute," in the words of Dr. Cannan, "will join in a frontal attack on socialism in general; and yet every economist, whether of repute or not, is always ready to pick holes in most socialistic proposals."[64] Mental approach must involve an attempt to understand socialism as an integral system of thought. Practice of picking holes is a quality of small minds and must, of course, be treated by scientific students as an intellectual vice.

70. Socialism is not the practical issue in India that it is in some other countries. The fact is an advantage from the academic standpoint. It is or should be possible to discuss the issues involved without clouding our judgment by strong emotions. It ought to be still possible to deal with them rationally, logically and factually. But we must remove the 'sanitary cordon' which has been drawn round the universities against socialistic thought. Our students are being strongly drawn by it. It is our duty and privilege to help them to grasp the subject in the dry and clear light of reason. It is natural that they should be strongly stirred by it. That is a wholesome response of the ardent minds. But since they are students, it is for us to stress the necessity of their using their understanding more than their emotions for appreciating its possibilities and limitations. If that is to be done, it is necessary that initiative in the matter should remain in our hands and not pass, if I may say so without meaning any disparagement, to politicians. If it does, the fault and responsibility will be entirely ours and the universities will definitely be the worse for it.

Freedom of Economic Thought

71. I hope that it will not be considered presumptuous if I, in conclusion, endorse, with all the earnestness that is in me, the appeal made by Pandit Jawahar Lal Nehru to the universities a few months ago to remove the fear-complex. "The fear-complex," he said, "which oppressed India has happily disappeared—and even the poor, hungry and miserable peasant has a franker look to-day and straighter back. It is time that the shadow of that fear and apprehension vanished from our academic halls also."[65] All college teachers have suffered from

64 E. Cannan, *Theories of Production and Distribution*, p. 494.

65 Speech at Annual Meeting of the National Academy of Sciences delivered at Allahabad, *Public Information, United Provinces*, Vol. I, No. 2, April 1938.

the fear and apprehension of which Pandit Jawahar Lal spoke; but the teachers of Economics and History have, for obvious reasons, suffered most. It is an unfortunate incident of their position everywhere that wherever there is inhibition or suppression of free thought, they are the first among the university teachers to suffer from the limitations set to the freedom of thought by the men in power. In India the same thing has happened and undermined the independence of our thought and expression. An important change has lately occurred in the mental atmosphere of India and all, including the inhabitants of 'the academic halls' can and should breathe more freely. The change is not complete as yet. I, for example, know of a Director of Public Instruction in a Congress Province, who only a few months ago, used the rule forbidding Government Servants' participation in politics against a professor of Economics for writing an article fully supporting a fiscal measure of the Provincial Government and also used the occasion for warning other professors of Economics against expressing publicly their views on current economic topics. But a change for the better has occurred and, it may be hoped, will be carried to its farthest limit.

72. The need for fearless thought has to be realized by all economists but more so by the younger economists. They are starting their life under more auspicious circumstances and have farther to go in their efforts and achievements. The older economists had their lot cast, in the earlier stages of their career, in less spacious times; but if, as one of them, I can presume to give the younger economists any advice, it can only be that since they have the advantages denied to their older colleagues, they have to realize that their responsibility is the greater and the duty of knowing that the changing times call for a new set of convictions the more imperative.

73. It should not be necessary to remind them that 'he who begins his life by stifling his convictions is on a fair way for ending it without any convictions to stifle.'[66] They have the advantage of their age and the times, and can appreciate more easily and vividly the need for independent thinking in the interest of intellectual rectitude and the performance of their obvious duty in these critical times.

74. We have to get rid of the fear-complex, but that, of course, does not mean that we have to relax in the least our own rules of mental self-discipline or lower the standards of thought

66 Morley, *Compromise*, p. 91.

and expression. The problems that we have to study, are now more complex than ever and call for strenuous and sustained thinking on a more elevated level of thought. Our intellectual responsibility will be greater and not less owing to our securing and exercising for ourselves fuller freedom of thought. Freedom has got its obligations; and it is an obligation of academic freedom that our speculations should be characterised by what Morley calls 'a wise suspense in forming opinions and wise reserve in expressing them[67].' Our ideas should become the more balanced and their expression the more reserved for our being free in forming and expressing opinions on the urgent problems and vital issues of the day.

75. But the cardinal point is that economic thought in India should be free and it has not been so in the past. We have had to use, to borrow Morley's words again, 'thousand seductive masks of the pseudo-expedient'[68] and on that account been reduced to what he calls 'mediocrity of understanding and mediocrity of aspiration and purpose[69].' Political enconomists have to cease to be politic economists and make everything that comes within the ambit of their studies, a subject of unfettered thought and expression. We have to be both broad and deep and realize that the breadth of thought is perfectly compatible with its depth and clarity.

76. Sir James Grigg last year, in the course of a spirited speech in the Legislative Assembly, justified the appointment of a non-Indian (Professor T. E. Gregory, for whom all of us have

67 *Ibid.*, p. 94.

68 *Ibid.*, p. 93.

69 *Ibid.*, p. 97.

70 Sir James Grigg in that speech claimed 'to have read more of the recent works of Indian economists than any body else in the House;' and on the basis of his reading, put those works under 'two perfectly clearly well-defined classes.' Of the two, the second according to him, was an 'adaptation of economic reasoning to serve a pre-conceived political or industrial end;' and added, "The second pertains to men who are exclusively concerned with India and think of it as a closed system without regard to the remaining four-fifths of the world" (*The Legislative Assembly Debates*, Vol. VII, 1937, p. 3248.)

We may take it that Sir James Grigg has done us the honour of having read most of the recent works of Indian economists. It is possible that he may also read this Address. If he does, the earnest plea made in it for our not 'thinking of India as a closed system' may perhaps strike some responsive chord in him; though he, I am afraid, will be surprised how different can be the point of view and conclusions of an Indian economist who realises the necessity of including the remaining four-fifths of the world' well within the range of economic studies in India—different from those which Sir James would regard as 'a qualification

very great respect) as Economic Adviser to the Government of India, among other reasons on the ground that the intellectual horizon of the Indian economists was limited to India.[70] The speech called forth an equally spirited defence from the representatives of the public in the Legislative Assembly, for which we should be thankful to them. The speech was also, and rightly, resented by the whole body of Indian economists. Sir James Grigg is still under the dominion of, to use again J. M. Keynes' words quoted before, 'defunct economists,' and any economist, who has the temerity to modernize his thought, is in his opinion, not an economist at all and forfeits his right to be heard in the counsels of the country. It is no use resenting any aspersions that he might have cast upon the position and achievements of Indian economists. What really matters is that we should not deserve them; and knowing that India is to-day being moved by forces which are world-wide in their sweep and significance, we should understand their bearing upon Indian problems, use the understanding for getting a clearer and fuller grasp of the real situation and perform our legitimate function of pointing to the path which India has, by the re-organization of her economic life, to tread in order to come into her own. We cannot perform this function unless economic thought is completely free and expressed without any fear of popular or official disapproval.

77. Mussolini has said that you cannot move men by a cold thing like Economics. Economics must be cool and clear-headed, but it need not, rather should not, be cold. It cannot be cold when an epic struggle—epic both in its range and meaning, of which economic issues are the most vital part—is in progress, and the world is being stirred as never before by what I have called Emergent Values, which raise some of the most fundamental issues of human life. The economist, whether he likes it or not, has to take his place in the struggle and make his contribution to its coming to a climax which, let us all hope, will be followed by a world not only safe for men to live in, but also a world in which creative evolution will become consciously creative, i.e., men will really become the masters and architects of their own fate and future, and pass 'from the realm of necessity to the realm of freedom.'

for the scientific and dispassionate study which is required if the Government of India is to have the best economic advice open to it.' According to the view set forth in this Address, scientific and dispassionate study, by which Sir James puts so much store, is really both unscientific and passionate and a disqualification for studying the economic problems of the actual world.

78. India is also in the same struggle. There are risks and dangers inherent in it. Disruption of the world economy and with it the Indian economy, is well on the cards. But the risks and dangers should stimulate us—the Indian economists—to new and much higher efforts of thought. Scientific outlook in general, and in social sciences in particular, does not mean absence of passion, but dispassionate passion, not absence of interest, but disinterested interest. India now expects everyone to do his duty; but more than others it expects the economist to do his. His position is one of special trust and responsibility. All-sided action is necessary in order that the country may truly and fully awake, in the immortal words of Rabindra Nath Tagore, 'into that heaven of freedom in which the mind is without fear and the head held high.' Economic freedom must be an essential element in the coming freedom—freedom from alien control and the power of anti-social interests. We economists have to line up—line up without losing in the slightest degree our autonomy of thought and action. Parallel action of the like-minded men is urgently required. We have to get into step with the nation which is on the march and going with rapid strides towards its goal. If we cannot ourselves set the pace, let us at least keep up the pace which the nation sets for us.

After the presidential address of Dr. Gyanchand, Dr. B. N. Narayanaswamy Naidu, General Secretary, read a message from Hon'ble Ravisankara Sukla, Prime Minister of the Central Provinces, and proposed a vote of thanks.

Conference Proceedings

DISCUSSIONS ON PAPERS

Interest.

In the course of discussion on interest Professor Findlay Shirras observed; the problem of interest is perhaps the most difficult in the whole field of the theory of economics. It is in reality a group of inter-related problems. A theory of interest may seek to show the real reason for the existence of interest as an economic phenomenon. The theory may also attempt to show that interest is a factor in monetary policy or in economic planning under certain conditions, *e.g.*, in regard to employment and economic welfare. The papers which have just been read and are so full of interest make this clear. The theory may also seek to show what regulates interest at large or what gives rise to different rates of interest on loans of different types. The theory may also seek to show how the rate of interest is related to the distribution of income or savings. A theory of interest may deal with all these problems and many more besides.

In theoretical analysis interest is generally taken to mean a pure or net remuneration for the use of money. Most economists will agree that interest, which expresses the value of the use of capital, is determined, like all value, by the relation between demand and supply. Where there is a strong demand the marginal utility of capital will be high, and the capitalist obtains a large return in the form of interest. If relatively to the supply the demand for capital be weak, then the rate of interest will be low. We have, however, to go further into the problem and enquire what determines the demand and supply. I do not wish to criticise here the various theories which Böhm-Bawerk in his 'Capital and Interest' sets out and analyses. But to many, if not most, of the classical economists, interest was paid because capital was productive, and the amount of interest was determined by the degree of productiveness. From the side of demand the productivity theory does furnish an explanation for interest. It has sometimes been said that this theory explains why men do and can pay interest. But it does not explain why they must do so and to understand why they must do so we have to go to the supply of capital and this is usually put in a form known as the saving theory, sometimes called the abstinence theory of interest. Interest is regarded as the return or reward for abstinence or saving. It is to the estimate of the

marginal investor who is just tempted to save the marginal investment by the given rate of interest that the rate corresponds. On the side of the supply of capital interest is fixed at a point which just repays the sacrifice involved in the marginal investment.

The point then arises what fixes the rate which the marginal investor will regard as repaying him and just repaying him from his saving. Here we come to Böhm-Bawerk's theory which I still hold is sound so far as it goes as an explanation of the theory of interest. But it lacks finality. To Fetter's time-preference theory a similar remark might be made. Interest is a payment for the postponement of enjoyment. Present goods are more valuable than future goods; as the proverb is "A bird in the hand is worth two in the bush." My theory of interest, in short, is rather an eclectic one combining the productivity and the psychological explanations of interest. The demand for capital is determined by its productiveness and the supply by the difference in the value of present and future goods in the minds of investors. The rate is fixed at a point which will bring into equilibrium the productiveness of capital, measured by the value of its product, and the sacrifice incurred in the marginal investment of capital, determined by the relative valuation of present and future goods in the mind of the marginal investor. Owing to lack of time I do not think it possible to refer here to the contribution of Wicksell to the theory of interest. But there is no doubt that this great Swedish economist has made a valuable contribution. He has discussed interest with special reference to discount policy and shown the relation between the real or normal rate of interest as explained in the theory of distribution and the discount rate as described in banking analysis. This raises again the question of the dependence of the long term and the short term credit rate and I must be pardoned if I say nothing more about this than that Wicksell, as has often been said, is almost never entirely right; in fact, he is not seldom almost entirely wrong; but you will find that he has dug a little deeper than anybody else in almost every problem at which he has been working.

Keynes' theory of interest is very refreshing but like all previous theories not absolutely satisfactory. In his book on "The General Theory of Employment, Interest and Money" he introduces a peculiar argument which is the weakest part of his book. He denies the classical view that interest is determined by the supply and demand for saving; that it is the price of saving or 'waiting,' *i.e.*, the postponement of consumption. He

does so on the ground that hoarding involves postponement of consumption but is not rewarded by interest. In my view the fact that some people postpone consumption without receiving interest does not show that the great majority would continue to save in the absence of all interest whatever. Keynes maintains that the rate of interest depends not on the supply of saving, but mainly, if not entirely, on the volume of money created by the banks and on the willingness of the public to hold money in preference to interest bearing assets—in other words—their liquidity preference. Now in the short period the rate of interest mainly depends on the quantity of money rather than on the supply of savings. To make this important short period maxim into a long-term theory of interest rates seems to me to be unsound. Whether we agree with Keynes or not we should all admit from the practical viewpoint that the rate of interest depends on the quantity of money created by the banking authorities combined with the willingness of the public to hold that money. We should also agree that where cyclical unemployment exists, the rate of interest should be pushed down until only 'frictional' unemployment remains. The process of lowering interest rates should stop at the point where full employment has been reached and prices continue to rise. The most valuable contribution to interest Keynes makes, in my view, is not his contribution to explaining interest but his concentration on employment and effective demand, *i.e.*, the total stream of money being spent on consumers' and capital goods; where unemployment prevails, interest rates should be reduced and in so far as this is ineffective, consumption should be expanded by redistributive taxation. I am particularly interested in the theory of interest from the point of view of the trade cycle but I have no time here to set out my views except to say that in the recent trade recession and depression the rate of interest has not risen. Why? That gives rise to an interesting point which others may care to touch on.

Lastly, one of the previous speakers, Dr. Qureshi of Osmania University, takes, if I may say so, a mistaken view of interest. The good Muslim must neither pay nor accept Riba. Here in Ahmedabad with its 83 mills there is not one which is run by a Muslim and I see that it is this prohibition of taking interest that is largely responsible for this. It is only in the last 300 years in Europe that the taking of interest is not considered a grievous sin. The Christian Canon Law forbade the taking of interest altogether from any one who was not a Jew and this continued in full force till the Reformation. As

the modern industrial age developed, especially with the development of the joint stock company the struggle between ethics and economics led to the defeat of ethics, interest was allowed and usury only was condemned. Islam on the other hand is still pretty much where it was 1200 years ago. The authors of "The Life of the Prophet of Arabia" point out that Islam by adhering rigidly to the text of the Koran is reduced financially and politically. I hope for the future of Islam that economic forces will triumph and a distinction made between interest and usury so that the former may be allowed and the latter forbidden.

Rural Debt Legislation.

Professor S. G. Beri in the course of his remarks on Rural Debt Legislation pointed out the existing disparity, as between one province and another, even regarding fundamental aspects, *e.g.*, while the scaling down of debts was compulsory in some Provinces like Madras, elsewhere this result was left to be brought about by voluntary conciliation. He suggested the establishment of an All-India Economic Board to consider among other matters economic legislation proposed in the several provinces to ensure co-ordination of policy regarding fundamental matters, although elasticity might be permitted regarding the details of the scheme having regard to the diversity of local conditions. Such a procedure would also minimise possible conflict between Provincial and Federal Legislation.

Professor Beri next emphasised the fact that repayment of debt after being scaled down was the crux of the whole matter. No one agency would suffice to undertake this formidable task. The State—Provincial and Central Governments—the Land Mortgage Banks, which may be suitably helped by the Reserve Bank of India, must pool their resources to effect speedy redemption of old debts. It was also necessary on the one hand, to restrict the credit of the farmer and on the other to supply him with adequate finance for productive purposes. Finally, it was necessary simultaneously to devise measures for rehabilitating the great agricultural industry and to place it on an economic basis.

Industrial Planning.

Professor Beri who participated in the discussion of Industrial Planning for India welcomed the change in the angle of vision of the Indian National Congress whose attitude towards industrialisation was lukewarm if not hostile until recently. On

the other hand, there were some Economists and publicists in India who were whole-hoggers for a policy of intensive industrialisation of the country. Prof. Beri urged on the Conference the necessity of a composite economy for India with large-scale, medium-scale and cottage industries, all given their due place in the scheme of national planning.

Professor Beri next referred to certain fundamental issues that arose in connection with the scheme of industrial planning. He first raised the question of foreign capital and pointed out the necessity of its regulation in future. As a way out of the difficulties created in this connection by the restrictive clauses of the Constitution Act of 1935 he emphasised the desirability of creating suitable conventions to safeguard Indian interests.

Referring to the distributive aspect of industrial planning, Prof. Beri pointed out the need for taking prompt measures to ensure equitable distribution of the national dividend by providing for living minimum wage standard etc., and generally to curb capitalism in the interest of the masses. While favouring the continuance of private enterprise in the field of competitive industry, Prof. Beri urged the need for the extension of the industrial domain of the State in the field of public untility and monoplostic enterprises.

Rural Debt Legislation.

Mr. P. S. Narayan Prasad, Wadia College, Poona: Mr. Chairman, I feel constrained to express the view that in a good many of the papers read on this subject the historian in us seems to have got the better of the economist. On the contrary if economists are to give any useful lead in matters of debt legislation they must formulate a scientific theory on this subject with reference to the real influences at work in the causation of agricultural indebtedness. Although this problem in our country differs, in point of intensity, from the problem as it is in other countries, it is not in any sense exceptional since agricultural indebtedness is a common feature of every agricultural economy. In that case it is perhaps right to hold that it is not a problem which is a mere surface growth on our economy due to certain unfortunate accidents, and can be pruned away by a few drastic enactments; it seems on the other hand to be a problem which is organic to the structure of our agriculture. From a theoretical standpoint, agricultural indebtedness seems to bear some striking resemblances and almost looks like a counterpart to the problem of unemployment in an industrial economy and

its analysis may have to be carried out along the same lines with reference to monetary policy, the nature of investment and savings, the thory of interest rates and wages, the nature of the price level, the influences of fiscal policy etc.

Further, we do not seem to have laid sufficient emphasis on one aspect of our agricultural economy—a point which might explain many knotty paradoxes of the rural debt problem, *i.e.*, in regard to the fairly large size of sub-marginal production that seems to be extant in this industry. The growth of population, the lack of diversity of occupations, combined with the prevalence of an outlook which regards cultivation more as an occupation than as a business proposition has tended to extend the margin of cultivation beyond the levels justifiable by the nature of the price levels. As against this the bringing into cultivation of large areas of virgin land in the new continents, worked by smaller populations, equipped with larger and better capital, is an influence which would have resulted in the movement of these margins in our country in an exactly opposite direction, were agriculture pursued as a business and alternative channels of employment open. So it is perhaps correct to believe that such of the cultivation as is undertaken on lands which may be lying below such theoretically justifiable margins is being carried on at a loss, and the loss is partly made good by a curtailment of wages where such a course is open, and is getting consolidated as debt where this possibility is exhausted. If this be true the only solution for the abnormal intensity of the problem will be through methods devised to raise these margins into approximation with the really economic margins.

The emphasis on sub-marginal cultivation will also help to explain why it is possible to argue that the rate of interest on agricultural finance is too high, and also that it is not too high if all the risk factors were taken account of—a paradox which was the subject of a controversy sometime back between Prof. Thomas and the late Mr. Chablani. Similarly, the conflicting views expressed to-day that Debt legislation in Madras is leading to a restriction of credit, and that it is not leading towards restriction can also be explained by saying that it might certainly lead to restriction in the case of sub-marginal cultivation and that it will not result in restriction in the case of other parts of the industry. These are merely rough and tentative suggestions but I venture to suggest that it is analysis along these lines that must precede any scientific formulation of recommendations for legislation.

Planned Industrialisation in India.

"Planned Industrialisation in India" was the current topic discussed at the 22nd All-India Economic Conference. Prof. Radhakamal Mukerjee opened the discussion. The following delegates took part in the discussion:—

Mr. P. S. Narayana Prasad, Mr. Pardasani, Mr. B. G. Bhatnagar, Mr. T. M. Joshi, Mr. A. B. Bhatt, Dr. P. J. Thomas, Mr. Maharajkrishna, the Minister of Industries to the Government of the Central Provinces, Dr. B. V. Narayanaswamy Naidu, Mr. Beri, Mr. Narasima Iyengar, Mr. Laxminarasu, Dr. P. S. Lokanathan and Mr. Karve.

Addressing the Indian Economic Conference at Nagpur on "Planned Industrialisation in India," Professor Radha Kamal Mukherjee of Lucknow stressed the need of establishment of the basic and key industries, correction of the present uneven character of the industrial system by rural industrialisation and decentralisation of some of the large-scale industries and their transference to regions where these might obtain raw materials and an abundant supply of labour on the spot. Industries like labour, tend to be stay-at-home in India, and a stress of the cumulative, technical, banking and other advantages in a few industrial centres would divide the country between highly industrialised Provinces and those which will persist as hewers of wood and drawers of water and may jeopardise the experiment towards federalism, which in its economic aspect needs a mutual utilisation of products of different Provinces.

In Soviet industrial planning there is not only a shifting of industrial capital in favour of the immature economic regions where a higher tempo of development than in the older industrial regions is sought but co-operative societies and Government agencies have been encouraged for aiding the development of handicrafts and small industries.

Planned industrialisation in India would eliminate the competition between the big industry and handicraft and integrate cottage, workshop and factory production, representing links, subsidiaries and auxiliaries in the process of manufacture; it would select for protection and special treatment those large agricultural and light industries which may make small farming more remunerative and at the same time deflect surplus labour from agriculture and diminish agricultural idleness.

India's industrial advance is limited by the low purchasing power of her agriculturists. In the absence of an increase of the agriculturist's income even a forward industrial policy backed

by protectionism of an extreme kind cannot bear much fruit. On the other hand, such increase may be secured through the development of agricultural industries, which would utilise large quantities of secondary crops and raw materials which are now being exported, and which may offer better prices than many cereals. The improvement of foreign trade by reciprocal agreements for the special advantage of the agriculturists is also necessary for achieving this end.

Concluding Dr. Mukherjee observed that in order to counteract the vicious circle of subsistence farming, low standard of living, poor purchasing power and industrial backwardness the attack should simultaneously begin in the social front with population restriction and from the angle of improvement in agriculture and the systematic introduction and encouragement of rural industrialisation.

PROBLEMS AND PROSPECTS OF PLANNED INDUSTRY

BY

P. S. NARAYANPRASAD.

SUMMARY

The Delhi conference of the Ministers of industries and the appointment of the Planning Committee have been responsible for releasing great hopes and expectations in regard to the development of planned industry. In this paper I propose to examine two of the questions relating to this matter, *viz.*, whether planned industrialisation without simultaneous planning in the other aspects of our economy can be really planning in any scientific sense, and shall attempt to formulate an outline of the minimum objectives for a successful scheme of planned industry.

In popular discussions of this all too important a subject, the term planning has become a wooly concept and is increasingly being used without any reference to its really scientific meaning. While seeking the liberty to pass such a judgment on popular opinion, it must of course be admitted that even the economists themselves have not formulated any well defined notion of what exactly is the meaning and scope of planned activity. In fact the idea of planning within the frame-work of an economy based on free enterprise is itself a matter of recent origin, a serious discussion of it dating only from the advent of the last depression. Its tenets still await proper analysis, its objectives a more clear definition, and its scope a more precise outlining. In such circumstances, there is no doubt that a precise formulation of the objectives of planning is bound to be subject to important differences of opinion. But it must be emphasised that these differences are nothing, when compared with the widely different meanings attached to the term planning in popular discussion. To the dismay of the student of economic theory, even the more serious and authoritative advocates of economic planning, when they endeavour to present their particular schemes of economic amelioration, in the alluring garb of this new-fangled theory, seem hardly to care to verify whether, except in name, the content of their schemes has even the remotest resemblance to the content of economic planning in its scientific sense. Planned education, planned irrigation, planned development of co-operation and marketing, may be aspects of planning but are not planning in

themselves. And from the point of view of an industrially backward country like India, industrial planning is undoubtedly an important aspect of planning. But mere industrial planning to the exclusion of all other aspects is not economic planning; for if that were so, there has been planning all along the centuries.

If we look to the origin, in recent times, of discussions on planned economy for a clue to its proper scope we find that it has come into existence, as a by-product of the analysis of the theory of the trade cycle. From this point of view it may be said that one of the primary objectives of economic planning should be the control of the trade cycle and maintenance of a position of balance during the stages of transition from one equilibrium to another. Incidentally, the same analysis has revealed that a system of free competitive enterprise, far from being conducive to stability, is subject to serious drawbacks. It is the purpose of economic planning to eliminate these handicaps through the intervention of planned action by the state as a substitute for the competitive action, to the degree essential to the elimination of these drawbacks. It is necessary to mention a few of the more important imperfections of competitive economy, in order to appreciate properly what objectives a planned economy should seek to realise. Firstly, the fundamental assumptions of free enterprise in regard to the uniformity of price, the degree of freedom of the competing units as well as their size, the freedom of the mobility of the producing units, the ability to choose employment and investment on the basis of a utilitarian calculation of maximum advantage have all revealed imperfections large enough to invalidate the conclusions based on them. And contrary to the teachings of the *laissez-faire* theory, it is found that such an economy working under conditions differing enormously in details, though not in fundamentals, from the conditions that obtained when it was first propounded, seems to suffer from certain deficiencies. It is supposed to be subject to a chronic tendency to maldistribution of productive resources; to fail to exploit natural resources, including labour and capital to their proper capacity; to tend to create a faulty system of wants dominated not by the spontaneous preferences of the consumers but moulded and shaped by the private interests of the producers, aided by the arts of propaganda, culminating in a gross perversion of want-values; to establish, if unchecked, a selection of employees, at a rate of remuneration and in a manner inconsistent with the community's welfare; and to render co-operation between labour and capital within and between states

increasingly difficult. Any rational system of economic planning, therefore, should aim at the elimination of all these drawbacks through all the agencies of state control. On the background of this theory it should be possible to visualise the desirable minimum of the objectives of any scheme of planning for this country as comprising of activities designed to stimulate and rationalise industrial development to so reorganise agricultural conditions as to effect a more rational appropriation of wealth as amongst the various agents of production, and to integrate agriculture generally with the needs of industry and the requirements of the world market, to strive for a planned stabilisation and development of foreign trade and transport, to undertake control of the periodical trade cycle, to devise social legislation and tax reforms with a view to effecting a more rational system of wealth distribution which would augment the community's welfare in general.

On this assumption of what appears to be the proper meaning of economic planning, it is necessary to bear in mind that industrial planning is only one aspect of it. Although it is an important aspect in the present economic conditions of the country, the other aspects of planning cannot be separated and tackled in isolation, if *planning* is what is wanted. But industrial planning in the existing circumstances, economic and political, seems to be the logical first step. And in regard to this planning the problem seems to need attention in many ways. Firstly, there is the difficulty of finding out new ventures of large and medium scale production, and there is little doubt that many such avenues are still open. In respect of the criteria for the choice of such lines the principles laid down for the planning committee (as per communique in the *Times of India*, dated October 24,) seem to be fairly comprehensive, if it is also added that in the selection of industries not only profitability but considerations of public welfare also must be taken into account in giving precedence. It is also necessary that wherever practicable, rationalisation of existing industry should be planned in all possible ways, because the maximisation of productive capacity is related, not only to the employment of resources in industry, but also to the manner in which they are used. It should also form a part of industrial planning to help initiate a number of small-scale cottage industries, particularly those connected with the utilization of agricultural by-products and it must be recognised that in a predominantly agricultural country the need for the stimulation of small scale industry is no less important than any other type of industrial development. The scope for such

development is probably made larger since the advent of electricity as motive force, which may considerably assist decentralisation without impairing efficiency. In this connection an integrated study of the economic and technical aspects of the problem is what is necessary as a preliminary to planning.

Upto this point, it may be granted that there are no grounds for contention on the principles of industrialisation. But there are certain other problems incidental to industrialisation, and it is probably there that the greatest care in the matter of planning would be necessary. There is in the first place, the problem of finance and the methods of obtaining it for industry. There is, no doubt, a widespread belief that the lack of finance is a rather serious problem confronting industrial development, but no serious student of the problems has been able to find reason for such cynicism as regards its scarcity, the difficulty being more of organization and the proper assurance of safety, which the prospect of governmental assistance ought to make possible. But more than this, it should be possible to discover means of utilising such idle resources like insurance reserves that seek the profitless safety, for want of better means, of gilt-edged security. And above all there is no reason why the assistance of foreign capital should not be sought, provided the terms of borrowing and the privileges associated with it are subject to our control. But in this case the problem is not so easy as it looks if we remember the commercial discrimination clauses of the federal constitution. An allied problem of industrial planning, and one which is more tough than this, is that of squaring the interests of indigenous and foreign capital, an issue which may be expected to be, for a long time to come, the bone of contention between nationalist and imperial interests, and therefore between the provincial and central governments. The insistence on imperial "partnership" and the catchy phraseology of "co-operative imperialism" does not enable much optimism in regard to its proper solution. Yet another aspect of industrial planning is in respect of industrial organisation. The managing agency system, whatever its merits may have been under certain circumstances, has on the whole played no small a part in nourishing the foster-child of foreign capital, and has not on the whole contributed either to efficiency or economy in the use of resources, and these lessons must be kept in mind in the case of at least the newlv planned industries. Similarly, in regard to small-scale industries planning along lines of co-operative organization has numerous advantages and should be aimed at as an important aspect of planning. It should also be possible to consider, wherever chances are promising or con-

siderations of public welfare justify, the operation of certain types of state monopolies (like the development of an inter-provincial government tourist agency, the ownership and operation of the bus traffic, which might incidentally assist development of the contemplated motor industry, etc.) either with a view to increasing the revenues of the state or to providing certain types of services or producing some commodities with a view to subsidising welfare schemes. Finally, no scheme of industrial planning would be complete, if it neglected attention to the social aspects of industrial planning. It should be the privilege of our backwardness to profit by the mistakes and the experience of the pioneers in industrial development in this respect. The neglect of this aspect of planning in the present late stages of industrial development will increase rather than lessen the troubles of conflict between labour and capital if their relations are not carefully thought out as a preliminary to industrial advance. Today, we cannot afford to commit those same mistakes again and yet succeed industrially. With any of these aspects neglected industrial planning in the proper sense would be incomplete.

But all this planning would be nothing more than a mere palliative, if at the same time it is not supported by an equally comprehensive and vigorous planning of agriculture. For, Indian agriculture at the present moment is a cup without a bottom. Increase in wealth made possible through industrial development will not enable an appreciable rise in the average standard of life, if these are only to liquidate the losses on agriculture. What is the exact nature and extent of this loss is difficult to estimate owing to the paucity of statistical data, and to the absence of a business outlook on the part of the farmer and the consequent enhancement of the difficulty of estimating agricultural costs, which even otherwise is no easy matter. This view need not imply that there are not some sections of agriculture which are very profitable. But it may be safely asserted, on the basis of some very relevant circumstantial evidence, that owing to pressure of population and the discovery of new lands in other continents cultivated by fewer people and with better technical and capital equipment, the margin of cultivation in India has shifted to, or been permitted to remain, at a point far below the level justifiable on the basis of the present demand for agricultural produce. And wherever such conditions prevail (and they seem to prevail not only in the case of our export products like cotton and oilseeds, but also in the purely home-consumed products like rice and wheat) the conclusion is obvious that this part of agricultural industry is run at a loss, which has

naturally to be liquidated either by a reduction in wages where it is possible, or by the income of the community from the other channels. Viewed from this angle it should be possible to explain the phenomenon of agricultural indebtedness, with the exhorbitantly high rates of interest at one end of the scale and the losses sustained by the moneylenders and ejectments of landowners at the other (the moneylenders *on the whole* making no more gains than the returns of the ordinary market rate) as an illustration of the fact that the high rates are a premium paid by the community to insure the prosecution of cultivation on sub-marginal acres. The restoration of profitability of agriculture, therefore, is as important a necessity as industrial planning itself.

Taking this as the end of agricultural policy it should be planned to be realised through the intervention of the state, firstly in making possible a more rational distribution of the produce of agriculture, secondly by trying to restore a proper quantitative proportion between the factors engaged in agriculture and thirdly by harmonising our agricultural production with the needs of the world market and those of our own industries.

A more rational system of wealth distribution as between rents, interest, profits and wages is an essential prerequisite of agricultural planning. From the standpoint of economic theory, in the existing circumstances, owing to the free working of competitive forces, an increase in population, not in itself enormous, but unaccompanied by proportionate increases in the other agents of production, has tended to reduce the marginal productivity of labour relatively to that of the other factors; and this in turn contributed to a deterioration of the conditions of agricultural wages and made the position of the rent, interest and profit making classes relatively favourable. To the extent to which it is due to this cause, it will tend to disappear with a restoration of proportions appropriate to an optimum condition. But pending the realisation of that stage which is undeniably a matter of time some kind of intervention by the State in the matter of controlling rents and interest rates is necessary. The debt legislation schemes of the various provinces and the tenancy legislations are the essential first steps to a system of agricultural reorganisation, although these legislations leave much room for scientific improvement in matters of principle as well as detail. But, at the same time, the amount of pother that is made even in regard to the ridiculously moderate provisions of these, bills (*e.g.*, the agitation against the Bombay tenancy legislation) and the frantic search for means of nullifying their effectiveness (*e.g.*, the sabotaging attempts being made against the Madras debt-

relief bill, in all probability by the aggrieved "patriots" themselves, belonging to the rentier classes) indicate the amount of probable resistance that will have to be faced by governments that mean business, and this might even enable us to appreciate the difficulties of planning seeking to approximate to the objectives of theoretical analysis through the tortuous slowness of democratic higgling.

Next to this a much more important problem of agricultural reorganisation is the restoration of the proportions between various factors in a manner approximating to conditions of optimum production. In the case of labour as a factor of production the difficulty is that it is much in excess of the probable optimum level, and very inefficient at that and one way of mitigating it is by increasing its equipment with the other factors. But in the existing political and economic circumstances this objective cannot possibly be achieved to the necessary extent; and for this reason the surplus labour problem will have to be tackled through an active population policy; and the problem of its efficiency has to be tackled through a stimulation of the causes contributing to efficiency of which education, general and technical is one. To a small extent, no doubt the same result may be expected to follow from the withdrawing of population from land as a consequence of industrial development. In regard to capital as the next important factor in production, the problem does not seem to be that it is inadequate, as is mistakenly argued some times; on the contrary it is excessive in the sense that capital being shy to enter industry has tended to seek a haven in agriculture, and over-capitalisation in land values has to be tackled both for the relief of agriculture from this incubus, and for ensuring an even flow of capital into industries that await development, through measures modifying the provisions of the Transfer of Property Act in relation to its application to land. If land is made inalienable on account of debt transactions a great attraction for the flow of undesirable capital into agriculture may be stopped. But the real problem of capital in this industry is its inefficiency, and relatively to this its expensiveness, which adds to the costs of production. The inefficiency of capital and some part of its expensiveness may be avoided by modernising it wherever possible, and by destroying all that exists as surplus to the needs of the industry, as in the case of cattle which are believed to be heavily in excess and are a drag on the efficiency of the useful part of them. But all its expensiveness cannot be done away with so long as agriculture remains a losing concern, because the losses of capital in the maintenance of the loss-sustaining part of

the industry will be made good by the expensiveness of its availability in the other channels. Nor should it be expected that such modernisation will not result in fresh problems. The one obvious outcome of it would be a tremendous economy in the quantity of labour that is required; and this might almost become a staggering problem, for it must be admitted that a rationalisation of agricultural equipment and the present scale of employment cannot co-exist. Nor can this modernisation be avoided, without at the same time condemning labour to the present standards of wages. It is a paradox, and the solution for it is to be sought, perhaps not so much in withholding improvements but in improving organisation as a factor in production. Here the improvements in marketing organisation and the stimulation of certain lines of demand which at present either do not exist or exist feebly (for example, the demand for dairy products) will be of some small help. But a more fundamental search should be to evolve an organised system of production (*e.g.*, on co-operative lines) in all its stages, which will enable the use of modern capital without dislocating agricultural employment, to the same extent as under an individualist scheme of production. Suitable incentives for the development of co-operative schemes of production may be offered through concessions in land revenue for co-operatively cultivated areas with some higher rates for other lands.

But simultaneously with all these changes it is also necessary to keep in mind the trends of the international and national market conditions and through a proper system of crop-planning and restriction schemes, co-ordinate production with the trends of demand. Wherever possible the co-ordinated development of industry and agriculture should be the aim, as such integration enables a greater stability in the market conditions and offers a great facility in the control of trade fluctuations. Self-sufficiency, to the degree economically desirable should be aimed at, and it should be advocated not on the basis of the sheepish pleading that every pie of our purchase abroad is a loss to us and a gain to the foreigner (a fallacious argument of mercantilist superstition) but on the ground that the deliberate choice of the restrictions of the scope of international division of labour is indispensable in the present phase of economic nationalism (as is recognised by the free-trade-minded Britain with all her subsidies for the uneconomic agricultural industries), and on the further ground that stability of market conditions is preferable to prosperity with fluctuations—a principle which is also accepted by Great Britain as being the basis of the policy framed at Ottawa.

But with all this, for a long time to come, the nature and extend of the foreign trade of India will have to remain as at present and the fostering of this line of our economic activity should form an important aspect of our planning.

This leads naturally to a consideration of the principles of commercial planning. In this matter as also in the planned control of the trade cycle, the reform of the tax system to effect a more rational distribution of wealth and in the branch of social legislation, the centre and the provinces will have to act as one; and the certainty of the impossibility of this co-operation, naturally, will not make us enthusiastic in the formulation of principles the execution of which is well nigh impossible. Even under a federal scheme one might easily apprehend the possibility of a spontaneous emergence of co-operation between the various conservative elements, so as to prevent much effective reform of this variety, pending the inauguration of a more democratic control on the basis of a widened franchise. Till that time, perhaps it will be necessary that we should keep our planning in this direction in the cold storage. But within certain limits, even in this matter the provincial governments can make some contributions. In the matter of taxation particularly, if taxation is treated by them as a powerful instrument in securing the ends of economic justice and not as a mere source of revenue to the government, they might utilise such direct sources of revenue as lie in their hand like the agricultural income tax and death duties to bring about some kind of distributional reform. Further, since the decree of the federal court in respect of sales taxes has come out favourably to the provinces, a fair measure of taxation on the sales of all luxury goods may help in the direction of tax reform. But here again there is the other consideration, no less important than that of tax reform, that if too great an element of progression in these direct taxes were introduced it might affect adversely the rate of capital accumulation, so urgently needed in this country. For this reason the ends of distributional justice may have to be sacrificed temporarily if it is necessary in the interests of future. If, however, there is reason to believe that such accumulation is not freely entering industry, or is not entering those lines of industry that may be sponsored by the industrial plan, there is every justification for such taxes being levied at as high a rate of progression as practicable, and the proceeds may be made available through state aided industrial banks in the form of loans to industry, instead of being used to subsidise schemes of social welfare.

Similarly the control of the trade cycle and the framing of a uniform code of social legislation are important, but planning here may have to wait and this is bound to be a hindrance in the effectiveness of the other plans. But in the realm of industrial and agricultural planning much preliminary spade work is possible, and the development of some measure of economic strength is in itself an important consideration; for in these matters, strength like weakness is cumulative, and with one step advanced, the achievement of the other would be made easier. It is with this caution in mind, rather than in any great hope, that the task is to be approached. If nothing else, even if we were to succeed in creating a convention for planning and to help establish a tradition for the creation of an expert body for prior consultation by governments, it would be no mean achievement. After all, it must be remembered that planning in its comprehensive sense is not practicable in the existing conditions of our political life. Still, there is an undoubted advantage in calling it planning, because there is certainly much more in a name than mere noise.

BASIC FACTORS IN INDIAN RECONSTRUCTION

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Economics may aptly be characterised as a derived science, that is, a science which has very little of its own, specially in the realm of first principles. Almost all its laws are derived from other primary sciences and by the utilisation of these as its premises the science of Economics like the sciences of Architecture and Eugenics builds its own theories and theorems. It is really the superstructure on the borrowed material, that is Economics. And a very large part of this superstructure is relative to the time and circumstances in which it was raised. If this interpretation of the nature of the science of Economics is correct then we should have no difficulty in subscribing to the thesis that although desire for gain can be taken, as in fact it is, as the motive force of all economic activity in the present day world and, therefore, it can be accepted rightly as an assumption of the existing science of Economics, yet if the man so chooses he can make altruism as his main guiding motive of all economic activity, and then we shall have a science of Economics with a superstructure built as now upon the eternal borrowed truths, but conditioned throughout with the new basic assumption. The superstructure will still be economic, but it will be of a character different from what it is now. That is to say, determinants of the character of economic activity as also of the science based on the basic notes of that economic activity are derived not from economic sources but from such independent sciences as Ethics, Politics, Metaphysics and so on. Again if this way of looking at Economics and economic activity is correct then I will not be considered to trespass on your time and attention now when you are meeting as economists, if I offer certain entirely non-economic ideas for your consideration as the basic determinants of a reconstructed India. It is in this hope that I have taken the liberty of offering this non-economic paper to the Conference of professed economists.

India at present and for some time past has been passing through a period of violent change which technically is known as revolution. When the history of India comes to be written, after

one hundred years or so, the past two hundred years of British domination in this country, that is, the period beginning from 1757, when the last remnants of the Muslim domination were scattered to the winds on the battlefield of Plassey, and now shall have to be considered not as undesirable episode in the history of the country, but as a welcome interlude which set the ball of revolution in the life and thought of the country rolling and which will end after its mission the consolidation of the variegated people of this country into one consolidated nation and the re-orientation of its arts, crafts and industry by the assimilation of the world's new stock of knowledge, shall have been accomplished.

Like all revolutions in other parts of the world, the revolution in India was initiated by destruction, and the period of destruction lasted about one hundred years. During those hundred years everything Indian was laid low. Indian kingdoms, Indian civilization, Indian art, literature, even Indian civilization and culture were thrown to the winds. In the period of reconstruction that followed, what the British tried to plant in place of what they had up-rooted was not indigenous but exotic. And this continued the revolutionary character of the British advent in India. Had the Indian civilization been of such a primitive type as of the South African Negro or of the Zulús, the introduction of British ideals of life and labour would have succeeded in exterminating it and India would have become Christian in faith and thoroughly Anglicised in all other respects. But with all their degeneration and decay the Indian people had something inherent in them, something inherent in their country which was and is even today distinctively Indian and which Nature herself would not gladly let die. Hence the impact of the West instead of killing Indian civilization and culture, only succeeded in giving them the very much needed impetus for awakening. Indian civilization, Indian art, Indian industry and Indian culture were never dead. Even the Islam with all its iconoclastic tendencies could not kill them but as usual was interwoven into the fabric of Indian civilization. The Hindus may talk of Hindu culture and the Muslims may make themselves hoarse by crying about their peculiar Islamic culture. But these do not exist. A Musalman in India is an Indian Muslim, neither his language nor his culture are pure, unalloyed, Semitic, both are Indian, as he himself is an Indian. Similarly the most orthodox of the Hindus may consider themselves as pure Hindus the direct lineal descendant of the Aryans, yet they are not today what the Aryans were, either in language, or in dress, or in manners and customs. Their present culture

and civilization are Indian, in which in spite of all the restrictions of caste and ceremonial a great deal of Semitic culture has crept in. That is, they are neither Aryans nor Scythians, nor Dravidians, but Indians of the 20th century.

Yet the revolution initiated by the British, almost two hundred years ago, is yet proceeding, and what we have not clearly understood is that today we have in our country the phenomenon of an ancient civilization and culture, enriched in the past by impacts and contacts with other civilizations and cultures of the world, awakened and struggling with the very much alive and vigorous civilization and culture imposed upon them during the period of their deep sleep.

The real struggle today is not between the British Imperialism in India and the Indian National Movement. The British Imperialism is already dead. It died on the fields of Flanders, never to rise again. The struggle today is between the exclusively materialistic western civilization and the newly awakened Indian civilization and culture. The sooner this fact is realised the better for all concerned. Otherwise a great deal of time and energy are likely to be wasted in trying for things about the shape and size of which we are not at all clear. Some of us think that it is inevitable that the Western Civilization with all its good points as well as its ills and evils must come in India, and that because we are today linked and intimately linked with the West. There are others who devoutly believe in the goodness of what we had before contacts were established with the West and who would do all that lies in their power to take back the country to what it was three centuries back.

All of us are anxious to rebuild India. Each one of us has a picture of his own of reconstructed India. There is the rub. If in the minds of most of us there was the same picture of what reconstructed India is to be, the day when we would in deed and in fact have a reconstructed India before our physical eye would come far nearer, than it is likely to be with innumerable pictures in innumerable minds. Moral? We thinking men and women, whether Hindus, Muslims, Christians or Jains should make ourselves absolutely clear as to what that picture of reconstructed India should be and then proceed to shape it in that direction.

As a basis for further discussion the writer of these pages is going to offer a few suggestions as to what should be the basis notes of the reconstructed India of to-morrow. The suggestions that I have attempted to make are not merely the outcome of my own imagination nor are they entirely based on my own predilections. They are the outcome of what in my opinion would appear

to be the logical evolution in colour and contour of the past history and peculiar physical environment of the country and her people.

At this stage I may be allowed to observe that I welcome the Committee appointed by the Congress to lay down a plan for the future development of the country. I would, however, submit to the Committee that before they proceed to lay down the actual lines of development they should define in no uncertain terms a few fundamentals concerning the future of the country. To begin with, the Committee should determine whether the country is to be developed on lines that would lead to that state of civilization of which Mahatma Gandhi is the exponent, or the country is to be developed on the lines of which Messrs Nehru and Bose are the exponents. Again if the country is to be developed on the lines followed in Europe and America, is that development to be carried to a limit where it shall have to plunge itself in the vortex of international trade with an imperialistic psychology behind it? Or will it stop at a point where a reasonably high standard of living of our own nationals would be satisfied and where international trade will be carried up to a limit strictly determined by the principle of voluntary reciprocity in deficiency goods and services?

To my mind these are vital issues and unless we are clear about these our plans of development are likely to be not only aimless as most of them have been so far, but may also lead to a great deal of waste of national energy and resources. We might do something today which later on may clash with our ideals and then it may have to be scrapped altogether. Such contingencies could be avoided if we start on a plan determined in the light of well thought out ideals for the nation to attain.

I will attempt to explain what I mean by a concrete contemporary illustration. During the last six years we have developed the sugar industry up to a point where the country has become self-supporting and further extension of the industry can take place only if we are allowed free access to foreign markets. This, as we all know, was denied to us by the International Sugar Agreement. Public opinion in the country resented this limitation and even men like Dr. Rajendra Prasad seem to deplore it. In his Foreword to the Indian Sugar Industry (1938 Annual) he observes "Today, India has practically no import of foreign sugar and may easily export an ever-increasing quantity of sugar if favourable conditions are made available. All this is quite satisfactory." Why resent the limitation or deplore it if we

have no ambition for the exploitation of other nations when we are free and strong? We deplore it because some of us while doing lip service to the high ideal of equality of nations are but imperialists at heart. We would like to do all that countries like England and Japan have been doing, if we had an opportunity of doing all that. If we genuinely believed in that high ideal instead of deploring the limitation we should have welcomed it. We may not be hyprocrites in what we say and what we do, but we are certainly not clear in our ideals and their implications in every-day life.

We are not clear in our mind as to where and how far we are to go. And we shall never know these unless we shall have defined the type of civilization our country is to develop in the future. Once we do that, then its contents can be determined and the limits up to which each particular content is to be developed as well as the peculiar ways and methods of developing it could also be determined with a fair degree of accuracy.

Now what should be the future ciivlization of India like? Should it be materialistic and militaristic as our socialistic-cum-communistic leaders like Messrs Nehru and Bose would like it to be. Or should it be of that meek renouncing type which with a loin-cloth and a crust of bread would live in isolated villages, cut off from the rest of the world, and if the world were to come to it then it would offer first its two cheeks alternately and then prostrate itself on the ground? Or should it be of that lordy type which Lord Krishna summed up on the battlefield of Kurukshetra in these words " Arjuna, live but do not lose thyself in Living."

Let me read the answer to the query from our history and our geography. Before the Aryan invasion of India the country is said to have been peopled by what are called as Dravidians who from all that we know about them would appear to have been not a set of savages, but fairly well-advanced in culture and civilization. They had various arts, crafts and industries as is evidenced by references to them in the Rig Veda. But above all they had a culture in which a goodly advance had already been made in metaphysical speculation (*Vide* "The Dravidian Element in Indian Culture," Gilbert Slater.) The influence of the Aryan as also of their successors the Scythian, the Tartar, the Mongol, the Turk and the Moghal was left on the Indian civilisation and culture. Each had its own peculiar contribution towards the fashioning of the Indian culture, but *the emphasis on the supremacy of the soul over matter and the relative position in which an average man should assess the two in his scheme of life*

and labour continuously remained a pre-eminent characteristic of Indian civilization and culture.

In our own schemes of reconstructing India we should seek to so consciously arrange the various sides of our national activity that this our national heritage may blossom forth in all its glory.

Again the physical environment of our country is such as to make our people easily satisfied and the things that go to satisfy them that very environment makes easily available. And yet there are certain aspects of that environment which continuously teach man in this country his own nothingness and supremacy of something beyond himself. The cumulative result of all this is that man in our country is prone to be lazy, fatalistic and immersed in philosophical speculation of a somewhat abstruse kind. In our scheme of reconstructing India we should make conscious provision to counteract these environmental tendencies, so that people of our country may develop into energetic, self-reliant and robust men and women who would look upon environment or Nature as their handmaid placed at their disposal by God to be exploited for yielding good things of life to increase the sum total of their happiness.

If my interpretation of Indian thought through ages and of the influence of Indian physical environment is correct, then the only form of civilization that would logically suit us would be what Lord Krishna epitomised in his teaching to Arjuna. Both our history and geography point in that direction.

Geographically our country is one of the few countries in the world whom Nature has blessed with practically all the necessary and good things of life. We can afford to be self-sufficient and yet wealthy. Few other countries can do that. Nature has meant us to be prosperous and not dependent on others, that is, she has placed material means within our reach, possession of which alone gives a man self-confidence to speak his mind openly and freely, as to what he thinks of others, and of what they do. A beggar has to be mum, nay, often to cringe. He can never teach what others he thinks ought to learn. That is to say, Nature has destined our country to rear a people who shall stand forth in the world as teachers of humanity in the Art of Living but not losing themselves in the process of living.

Historically we are neither a people nor a nation, but a congeries of peoples, a multitude of nations, each with its own language with its own religious faith. We have in the course of our thousands of years of existence in this country gathered together within our fold all nationalities, all religious faiths. We are in the strict sense of the term Humanity, and as such we

are the most fitted to teach to the people of the rest of the world the ways of living and of thinking that would also make them Human. At present they are either rank materialists and militarists or like ourselves rank fatalists, the food now for the belly, now for the canon of the rank materialists and the rank militarists. All this has got to be changed and should be the Mission of India to change it.

From the present seemingly antagonistic groups such as the Hindus and the Muslims in our country we have to evolve a civilization in which though each would freely practise his or her own religious faith yet would have the tolerance, the breadth of vision to let others follow theirs without let or hindrance. From the seemingly poverty stricken people that we are today we have to evolve a people who shall have all the good things of life, and who while enjoying them shall look upon them as means towards their happiness and not as an end in themselves. And this last way of looking at worldly possessions would help them to determine the limits up to which production and productive organisations shall be pushed. It is this last way of looking at things that would teach them to look upon other nations as their kith and kin by living happily with whom the good things of this earth are to be enjoyed together.

It is a civilization with the above as its dominant notes that I should like my country to strive for. We can build it up if with a single mind we put our shoulders to shape our country and ourselves that way.

INDUSTRIAL PLANNING IN INDIA

BY

N. S. PARDASANI, M.A.,

Bombay.

The problem of Industrial Planning in India is no longer an academic one. Nothing is now to be gained by questioning the need or advisability of industrialising this country; nor is it necessary at this stage to visualise the dangers of over-emphasis on the development of industries. The various difficulties in the way of rapid industrialisation should not be made excuses for allowing things to drift. The difficulty of doing perfect justice should not, to quote John Stuart Mill, prevent us from doing as much as we can. It is time to tackle the constitutional, financial and technical difficulties in the way of a planned industrial drive in India, and put forward concrete suggestions which Provincial Governments can carry out under their present circumstances.

The control of fiscal policy, the regulation of currency and exchange and the handling of large spending departments of Defence and Railways being constitutionally outside the scope of Provincial Governments, an All-India Planning of Industry is considerably handicapped. Nevertheless there is reason to believe that Provincial Governments can, if they have the necessary will, achieve much by way of developing industries, and it is for this purpose that I give below the outlines of a scheme which could be put into operation without delay in every province.

Provincial Industrial Planning Commission.

Each province should constitute a Provincial Industrial Planning Commission. The Indian National Congress has recently appointed a National Planning Committee, but an All-India body cannot achieve much in this direction without its efforts being actively supplemented by provincial bodies. The country is so large, and the field of development so vast, that the National Planning Committee is bound to discover, sooner or later, that it can only give general and directional guidance and help, and even this may become difficult without the existence and working of Provincial Planning Commissions.

Composition. Each Provincial Planning Commission should consist of five experts and six non-officials of outstanding ability and repute, preferably influential members of the Legislatures. The five experts should be:—(1) Industrial Chemist, (2) Geologist, (3) Mechanical and Electrical Engineer, (4) Officer in charge of Marketing and Information, and (5) Officer in charge of Technical Education. Of the non-officials, two should be practical financiers and one economist who should preferably act as secretary. The Chairman of the Commission should also be a non-official. The experts and the secretary should be whole-time paid people. As a rule, the period of membership of the Commission should be limited to four years, though some members may have their term of office renewed if their services are indispensable.

In order to assist them in the discharge of their duties, there should be a permanent departmental staff attached to each technical expert and the secretary.

Functions. The Provincial Planning Commissions should explore all possibilities of developing the existing, and creating new, industries in the province.

Powers. If possible they should be given definite legal status and their decisions should ordinarily be accepted by Provincial Governments.

In order to facilitate their labours, the following should be the distribution of work among the experts, though frequent opportunities of joint deliberation should be available.

The Industrial Chemist will be required to guide and control research in Industrial Chemistry. He should have a well-equipped laboratory at his disposal, and should be given facilities to tour round the province to study matters on which research is most urgently needed by industry. Advantage should be taken of University and College laboratories and the laboratories of bodies like the Indian Central Cotton Committee; and their joint efforts should be co-ordinated and extended to cover different lines which are likely to yield fruitful results.

The Geologist should be always on his legs and should find it possible to see every nook and corner of the province for such mineral and other deposits as may be available. The government must generously allow such expenditure on experimental surveys as may be incurred by him and his staff.

The Mechanical and Electrical Engineer must have two-fold duties:—(1) Exploring the possibilities of modernising cottage industries in order to place them on a firm footing. For this he must come in touch with the village industries, and must be

prepared to suggest concrete and practical ways of mechanising certain processes consistent with the existence of the industries as cottage industries. His services must also be utilised for giving expert advice on Engineering subjects to large scale industries.

(2) Transmission of Power which is frankly one of the most important ways in which Industries can be decentralised should be the close concern of the Mechanical and Electrical Engineer. There is, in this direction, a very wide scope which, if properly exploited, is capable of revolutionizing our cottage industries.

The Marketing Expert must be fully conversant with the qualities, prices and markets of various things produced within the province; and his study should enable him to suggest new markets or develop old ones, if possible even by alteration of quality of goods. But more important than this, he should *create* demand for the goods of the province by organizing industrial exhibitions, by controlling a whole staff of propaganda officers, whose duty must be to bring to the knowledge of the consumers the various things that are being produced in the country, and by such devices as affixing his stamp on certain goods of approved and defined quality.

The Officer in Charge of Technical Education will have to study the industrial needs, present and future, of the province, and see in what directions technical and commercial education should be expanded with best results. A separate officer with a place in the Commission is recommended because the Provincial Governments have so far paid inadequate attention to this matter, and are consciously or otherwise afraid of creating unemployment among technical graduates. But the industrial development of the country will be impossible without the aid of qualified and trained technicians. An exceptionally bold policy of increase of educational facilities is therefore a *sine qua non* of success. If care is taken to make the training available as practical as possible, there is nothing to fear even from a temporary surplus of technically trained people, as they are capable of carving out independent careers for themselves in one or the other direction.

The Officer in Charge of Industrial and Commercial Information must maintain an Information Bureau with a special statistical department, and must actively engage himself in collecting and disseminating information regarding all matters affecting Industry and Commerce, e.g., raw materials, labour supply, housing of labour, machinery markets, prices, etc. He should not wait till some piece of information is urgently required, but must see ahead, and should have a whole army of people under

him whose duty must be to advertise all necessary and useful information and even din them into the ears of public.

(In the beginning it is possible to combine the posts of the Marketing Expert and the Officer in Charge of Industrial Information; hence only one expert for the two departments has been recommended.)

Inspectors of Industries.

In every district there should be at least two Inspectors, fully conversant with the language, and people of the district. They should be the connecting link between the Planning Commission and the public, and should be immediately subordinate to the secretary of the Planning Commission.

Their duties should be mainly as follows:—

1. Establishing personal contact with large and small scale industrialists in the district, and acquainting themselves with the general problems and special difficulties of those industries, as well as with the possibilities of their development.
2. Acting as agents of the Provincial Planning Commission, *i.e.*, reporting on matters referred to them, conducting practical demonstrations of new mechanical methods for use in small-scale industries, supplying information, etc., etc.

In short, the Inspectors of Industries must be men of all work capable of helping all departments controlled by the Industrial Planning Commission.

There remain the two Financial experts and an Economist whose duties must be considered. The Financial experts must be in touch with the monetary difficulties of industrialists and must suggest the best possible ways in which Government can help. They should be the ex-officio directors of the Provincial Industrial Bank which must be started by every province. The capital should be raised partly by the issue of debentures on which Government should give guarantee of interest for a limited period of years, and partly by the issue of shares, the shareholders having the right to elect the remaining directors.

The Economist should be given an opportunity to coordinate the viewpoints of different experts and should therefore be the secretary of the Planning Commission, and must actively supervise the working of Inspectors of Industries in different districts.

Concluding Remarks.

The above is only a skeleton scheme, and everything will depend upon the life which is put into its working. More than any organisation, what is required in this country is a will to industrialise backed up by sustained effort. Much, therefore, depend upon the personnel of the Commission. I suggest that members of the Commission should be chosen as much for their qualifications as for their enthusiasm and willingness to work hard.

I have no doubt that it is possible to improve the above scheme in details in order to make it administratively workable, but I only like to impress on you the fundamentals of my scheme. Even at the risk of some repetition, I would, in conclusion, place the following points for the consideration of the Provincial Governments:—

1. The time for setting up an expert wholetime body to organise a drive towards industrialisation is now long overdue.
2. The Governments have to be prepared to spend money liberally in this direction, and no return can be expected without investment.
3. A bold policy regarding increase of technical education, improvement of village roads and increased facilities for transmission of power, should be adopted. Expenditure incurred in this direction should be as large as possible, and can never be excessive.
4. Those cottage industries which are incapable of being modernised should not be artificially supported by the state; and while every effort should be made to reorganise them with the help of modern methods, no sentimental consideration should keep them alive.
5. The state should not, *as a rule*, undertake enterprise on its own, except under the following circumstances:—

   (*a*) When there is clear case for huge profits being reaped by the state.

   (*b*) When the goods or services to be produced are likely to find market only if they are undertaken by the state.

In all other cases, the state should, for the present, spend all money on facilitating and encouraging private enterprise, not because there is anything wrong with state enterprise, but because there is still a vast scope for private enterprise, and it is only when those possibilities are exhausted that the state should control and undertake industrial enterprise.

6. The success of Industrial Planning is ultimately limited by the position of the agriculturist, and one of the best ways of giving a fillip to industrialisation is to improve the position, and thereby increase the purchasing power, of the agriculturist. But that is a problem by itself.

The time is now opportune for making a concerted effort in the direction of industrialising the country, and a well-inaugurated plan on the above lines is sure to infuse new life in our villages and cities, and create that psychological background and atmosphere without which nothing great can be achieved in this line. A valuable opportunity is thus available, and no excuses should suffice to delay or postpone advantage being taken of it. Action, immediate and rapid, comprehensive and co-ordinated, should now be the watchword of Provincial Governments.

PLANNING OF POWER PRODUCTION IN INDIA—THE ECONOMIC ASPECT

BY

DR. B. V. NARAYANASWAMY NAIDU, M.A., B.Com., Ph.D., Bar-at-Law.

In the complicated structure of the modern world planning has become an imperative necessity in every sphere of human activity. Human adjustment towards the dangers, difficulties and changes of circumstances is marked by reason, and all rational adjustment involves planning; just as planning for the individual has long been recognised as necessary planning for larger groups, for nations as well as for mankind, has now become the need of the hour. Planning attempts a rational utilization of available economic resources for the greatest happiness of the greatest number. A plan involves not only a reasoned course of action but also a definite time-limit which serves as a tone and a stimulus to action. For good or for evil, the present is an age of huge mechanical production and our present material civilization must stand or fall according to our success or failure in securing power to keep the machines running. It does not matter whether the motive power comes from wind or water, from the sun or the tides, from coal, petroleum, oil, wood, charcoal or power alcohol. All these are valuable economic goods whose value tends to increase with each succeeding day. Economists since the days of Adam Smith have recognised this and, therefore, in considering Land as an agent of production they have understood by it not merely the earth's crust but all things that lie underground and all those physical features that condition it above the earth's surface. Increased utilization of power does not necessarily involve competition with human labour. On the other hand if the full economic cycle is worked out it would mean only an increase in the standard of living of the people.

From the very beginning of the modern Industrial Era power has played a prominent part in securing the material prosperity of a country. It is the utilization of power resources that has made England, Germany, U.S.A., and Soviet Russia foremost in the race for prosperity. For various types of industry and for the exploitation of natural resources power is of supreme importance. In the case of small-scale rural industries, it may be contended that man-power alone is enough. Even here some

of the raw-material might have been extracted by the use of power-driven machinery. In these days of cheap hydro-electric power it is possible to improve production and to minimise the drudgery of manual labour by the use of power-driven machinery even in small-scale rural industries. By industrial power are meant all forms of technical utilization of natural energy which includes water or wind power, hydraulic pressure, the cumbustion of fuel of all kinds to drive power equipment; in short all forms of energy that assist in the production, distribution or marketing of industrial products or services.

In the early stages of industrialisation coal held almost a monopoly in the field of power production. England achieved her industrial pre-eminence in the first years of the last century mainly because of her abundant supply of coal. Similar utilization of coal in Germany, France and U.S.A. led to the progress of industry in those countries. This meant a greater utilization of coal in industry. But later on there was a reduction in coal consumption when methods were discovered to extract more of energy from a given amount of coal. The intensive study of coal economy in its turn sprang up from a movement towards higher units and higher thermo-dynamic efficiencies. In 1920, 3·5 lbs. of coal were needed to generate one kilowatt hour of electricity in central generating stations while in 1929 only 1·9 lbs. were needed. The use of coal became further reduced on account of very rapid development of water power in U.S.A., Japan, New Zealand, Canada, Scandinavia and in Central and Southern Europe. Nearly 88·5% of the world's production of power was supplied by coal in 1913, while in 1931 only 66·5% was supplied by coal. The supply of power from water was 4·3 in 1913 and 12·4 in 1931. Since then there has been rapid progress in the supply of power from water.

TABLE I

World Power Production (1913—1931)

(In 1,000,000,000 British Thermal Units)

Year.	Coal.		Oil and gas.		Water power.		Total.	
	Amout	%	Amount	%	Amount	%	Amount	%
1913	36,236	88·5	2,938	7·2	1,750	4·3	40,924	100·0
1920	35,209	82·1	5,030	11·7	2,660	6·2	42,899	100·0
1925	36,130	75·5	7,700	16·1	4,000	8·4	47,830	100·0
1929	40,580	71·2	11,030	19·4	5,364	9·4	56,974	100·0
1931	32,530	66·5	10,315	21·1	6,078	12·4	48,923	100·0

Coal is largely used in India for industries and transport. But its price must remain high as long as it is confined to a few areas and as long as the cost of transportation remains high. Most of the coal produced in India comes from Bengal, Bihar and Orissa. Coal is produced also at Singareni in Hyderabad. Coal has to be transported from these places to other parts of India by rail and sea. Between 1931 and 1935 the quantity of coal produced in India has decreased; while the quantity of coal imported into India has increased. Hence coal cannot be a major means of power production in India.

TABLE II

Production of Coal during 1931 and 1936

Year.	Quantity.	Value in rupees.
1931	21,716,435	8,26,98,364
1932	20,153,387	6,80,96,604
1933	19,789,163	6,11,77,739
1934	22,057,447	6,30,60,951
1935	23,016,695	6,52,20,840
1936	22,610,821	6,24,98,404

TABLE III

Imports of Coal into India

Year	Volume (Tons in '000).		Value in lakhs of rupees.	
1930-31	179	"	35	lakhs.
1931-32	68	"	14	"
1932-33	47	"	10	"
1933-34	76	"	14	"
1934-35	71	"	12	"
1935-36	76	"	13	"
1936-37	92	"	51	"

Next in point of time as an agent of power production comes petroleum. The great development of motor and aerial transport is dependent on the increased production of mineral fuels. Since the separation of Burma only very small quantities of petroleum are produced within the borders of the Indian Empire; the large bulk of our supply is obtained from outside. Therefore the scope for the utilization of petrol for purposes of power

production is limited in this country. But in the case of motor fuel the position is different. Mr. W. Ormandy, D.Sc., F.I.C., Chairman of the Engineering Committee, Empire Motor Fuels Committee on Alcohol, says:—"The world's supply of motor fuels is obtained at present from natural petroleum, from the distillation of oil-shales, and from the distillation of coal, and is known in the two former cases as petrol and in the latter case as benzole..... Owing to the cost of carriage and distribution, petrol is very expensive in many parts of the British Empire and for this reason efforts have been and are being directed towards the production of some substitute for the petroleum product. Of these the most promising is undoubtedly alcohol, comparatively large quantities of which have been used in admixture with benzole and petrol. The present engine designed primarily for petrol will work, with very slight modification, quite effectively with alcohol." In view of these circumstances greater attention should be paid to the possibility of using alcohol as motor fuel. Vegetable raw materials for producing alcohol, *viz.*, starch-bearing plants like maize, cassava, arrow-root, potato and sugar crops and food products like barley and palm sap can be grown in India in abundance. The sources from which alcohol can be produced are—in order of importance—sugar (molasses etc.), starch (maize, potatoes, rice, cereals), cellulose and synthetic processes. Since the remarkable development of sugar production in this country during the last five years, almost 400 thousand tons of molasses are available from the sugar factories of India and the possibilities of producing alcohol from molasses are very bright indeed. In this connection the example of Italy and other foreign countries will be of advantage to us.

During the last five years the progress in the production of alcohol in Italy is noteworthy.

TABLE IV

Year.	Production in Hectolitres.
1924	499,5000
1925—30	473,9000
1931	454,4000
1932	431,5000
1933	416,3000
1934	406,1000
1935	517,7000
1936	1,095,5000

We find that cereals, molasses, sugar, wine, and beet were the main raw materials used for the extraction of alcohol in Italy. The following table shows the percentage of production from 1924 to 1936:—

TABLE V

Production from	1924	1931	1936
	% of the total production.		
Cereals	2·3	2·5	7·0
Molasses and sugar ...	71·0	72·6	30·0
Wine	22 6	19·3	20·0
Beet	4·1	5 6	35 0
Miscellaneous ...	...	...	8·0

In different parts of Italy factories are being erected for the production of alcohol from sugar beet; and the Societe Agricola per 11 Carburante Italians has started the construction of a factory for producing 250 hectolitres per day. It is estimated that Italy will be able to produce in two years' time two million hectolitres of alcohol carburant per year. This wonderful result has been made possible by the close co-operation between the Government and the magnates of Italian industry. In India too sympathetic co-operation between Government and industry is bound to produce similar results. There are yet in India large tracts of land which can be brought under the plough; and the possibilities of intensive cultivation have not yet been fully exploited. Therefore by careful planning it is possible to produce in even greater quantities these raw materials for the production of power alcohol.

In almost all countries natural water-falls have been utilized for the purpose of power production. This is perhaps the most important and cheapest source of electrical energy. Harnessing of water-falls for the purpose of producing power in India has got some exceptional difficulties. The falls are seasonal and therefore they cannot be directly utilized all through the year. Therefore water has to be dammed up and artificial water-falls created. This involves acquisition of enormous areas for sites and the construction of costly masonry work. This means that the cost of power production from this source in India must be high in comparison to the cost of producing it from natural water-falls. But it is possible to combine irrigation schemes with power production schemes—as at Mettur—and

the water that is released for the irrigation channels may also turn the turbines. In the matter of hydro-electric power India has this advantage, *viz.*, that it can be produced in any part of the country. Judging from the possibilities India can easily lead in the matter of hydro-electric power.

These possibilities of India were little known till 1918 when the Government of India, acting on the advice of the Industrial Commission, decided to carry out a hydro-electric survey. In 1918 the India Government appointed Messrs G. T. Barlow and G. W. Meares to conduct the survey. In the course of the year Mr. Barlow died; and Mr. Meares presented his report in September 1919. This report showed that India could easily produce 5½ million kilowatts of electrical power of which only 500 thousand was being then utilized. It was also shown that industries in India absorbed above a million horse-power of which only 285 thousand horse-power was supplied by electricity from steam, oil or water. Mr. Meares pointed out that the position of the Bombay Presidency was unique in regard to this matter.

If there is to be a great forward movement in the development of hydro-electric power the initiative must undoubtedly come from Government. For, the development of water power must precede the establishment of power-consuming industries. Only if cheap power is already available can industries using it be set up? No private agency can afford to start power production and wait for demand. And even if it can, such production must involve vast areas and this will tend to introduce all the evils of monopoly. The importance of hydro-electric power has been to a greater or less extent realised by the Punjab, Madras, Mysore and U.P. Governments and quite recently by the State of Travancore.

The importance of electricity in modern life and civilization is widely known to the present day. Perhaps its importance in the field of industry and in electro-chemistry is not so widely realised. Modern industry has been revolutionised by electro-chemical and electro-metallurgical developments. Chemistry is no longer a denizen of the laboratories but is the governing factor in the organisation of modern industry and the civilization based on it. The combination of electrical power and chemical theories has created a vast number of new products and processes and has immeasurably improved the quality of older products. Chemistry has stimulated industry; and industry in turn has utilized more and more of chemicals. This action and interaction has cheapened production and consequently increased

the demand for chemical products and with it the standard of living of the people.

Nothing can give greater stimulus to the development of chemical industry than an unbounded supply of cheap electric power. In the matter of electro-chemical development the possibilities are very great in Canada. Canada has a series of vast natural reservoirs and channels very high above sea-level and these can yield very large quantities of water-power very cheaply with the least possible amount of artificial regulation. Some of these resources have been exploited to a considerable extent and two-thirds of these produce articles for export. International regulation and specialization of production have been attempted in the chemical and metallurgical industries and in the pulp and paper industry. But a good part of Canada's material resources yet remains to be tapped. Not only Canada but every other country that has sources of cheap hydro-electric power has utilized them in the development of industry. If planned development of hydro-electric power is attempted in India our country will be only following in the footsteps of other progressive countries in different parts of the world. Attempts to develop electric power have already been made in India and recent years have registered considerable progress.

The cheapness of hydro-electric power has been demonstrated in Bombay which leads the rest of India in regard to this matter. The development of power production from water in Bombay has been due to the enterprise and initiative of the Tatas. The Tata Hydro-Electric Agencies which are largely controlled by them supply current to the city of Bombay and its suburbs, to the huge mills situated in and around that city and to greater Poona. This is secured from three sources: one, the power station at Khopoli which depends on the rain water in the western Ghats; two, the power station at Bhivpuri which depends on water diverted from the Andhra river; three, the works dependent on the Nila-Mula river to the South-East of Bombay.

Though Bombay is the largest producer of hydro-electric power in India, Mysore is the earliest to establish a generating station. The Sivasamudram Works were opened in 1902 and with the Krishnarajasagara reservoir it supplies electrical energy to the Kolar gold-mines, to the cities of Mysore and Bangalore and also to the whole of South-East Mysore.

The Mysore Government has always followed a very enlightened policy in regard to electric development. They have tried their best to popularise the use of electricity in town and village and in industrial undertakings. They have already

carried out a hydro-electric survey of the state and plans are now ready for erecting a second generating station of the Cauvery. Kashmir has also moved forward in the matter of producing electric power from water. The Government have utilized the waters of the Jhelum for establishing a generating station near Baramulla. This scheme is of very great promise; it already supplies electric power to the town of Srinagar and the silk factory in it.

Hydro-electric projects are in progress in the Punjab, U.P. and Assam. In the Punjab the Mandi Project came into operation in 1933 and is calculated to supply a large amount of power for the electrification of various towns in that province. The Ganges Grid Scheme in the U.P. has begun working; and there are small plants at Shillong and Naini Tal. Investigations are being made in Assam to supply hydro-electric power to the tea factories of Kalimpong and Kurseong. In Travancore, the Pallivasal Hydro-Electric Project is nearing completion and is expected to supply current for industrial and other purposes to the larger part of the Travancore State.

Madras too has not lagged behind in the matter of hydro-electric development. The Pykara Hydro-Electric Scheme was started in 1929 and completed in 1932. To this have been later added the Mukurti Project and the Mettur Hydro-Electric Project. All these together are capable of supplying a maximum power of 180,000 R.P. of electrical energy. The volume of power that is being supplied has been increasing and textile mills, cement works, tea factories and workshops have sprung up as a result of the cheap power supplied from these schemes.

The salient features of the fifth year of operation of the Pykara electricity system may be summarised as follows:—

> "The load on the system rose to 16,500 kws. which is above the safe-carrying capacity of the power station; and the erection of additional generating plant is now in progress; 82 millions of units of energy were generated; the system earned a revenue of Rs. 25½ lakhs being over 14 per cent of the capital outlay; rural electrification made good progress; and the system continued to operate satisfactorily and to retain the confidence of the consuming public." (Administration Report of the Electricity Department for 1937-38, page 6.)

Thanks to the far-sighted policy of the Madras Government, industrial development has received a fillip and cheap power has become available even in remote parts of the countryside.

A more widely diffused method of producing electrical power is by the establishment of thermal stations. In India hydro-electric energy has to be supplemented by the erection of a large number of thermal stations in different parts of the country. This method is widely prevalent in Great Britain and in other western countries. Thermal electric stations have served as the basis for industrial development in Soviet Russia. The First Five Year Plan included the erection under the Geolro Scheme of 30 large power stations having a total capacity of 1·7 million kilowatts. When this scheme was completed the results exceeded expectations and the actual total capacity exceeded 2 million kws. In Soviet Russia electricity is employed not merely in the cities and the factories but also very largely in the Railway Transport system of the country. It is also widely employed for agricultural purposes. The State Report on the First Five Year Plan says:—

> The powerful electric base which was created in the First Five Year Plan period ensured the greatest progress in the reconstruction of industry as well as a Bolshevik tempo in the industrialization of the country. The mastering of the power system which had been created and its further development is a most important link in the completion of the technical reconstruction of all branches of the national economy of the country in the Second Five Year Plan period."

The development of electrical power and the consequent increase in mechanisation have ushered in a new age. The age of steam has been succeeded by the age of electricity. The enlarged use of electrical power has revolutionised industry. Every detail of industrial organisation has suffered change including machinery, labour force and factory technique. New industries have sprung up and old industries have been transformed. Over and above the changes that have resulted in the realm of industry, colossal changes have come about in civilization and social structure. As in the age of steam there is no need for industry to crowd round places where coal and iron are produced. Electric power can be transmitted over long distances and industrial garden cities can spring up in any part of the country. The era of bloated cities has ended; and geographical

concentration of industry is a thing of the past. This geographical decentralisation has also been in some measure made possible by improved means of transport depending partly on oil and partly on electricity. The worst evils of factory conditions can be eliminated. The supply of cheap power even in remote rural parts will give a fresh lease of life to small-scale cottage industries by increasing their output, by standardising their products and by cheapening cost. Mechanisation as a result of the adoption of electrical power, has not stopped short with industry but has spread also to agriculture; and this in turn has increased agricultural production to a magnitude hitherto undreamt of.

If such have been the results of developing electrical power in other countries it is but right to strain every nerve in India to secure similar development in our country also. The potentialities for such development are almost unlimited; and the best way of making wise use of them is by deliberate planning for the future. This can be entrusted to an Electricity Board which will secure expert guidance and speedier disposal of matters electrical. This suggestion was examined by the Madras Government in 1936. Now the time is ripe for establishing Electricity Boards in our provinces. Greater attention paid to the stimulation of electrical development will not merely help industry but also enable India to catch up with other progressive countries of the world. If our country is to gain her rightful place in the comity of nations we cannot be content to let this source of wealth go undeveloped.

INDIAN ECONOMIC ASSOCIATION

Twenty-Second Session, Nagpur University, December, 1938

The Annual General Body Meeting of the Indian Economic Association was held in the Nagpur University Buildings on the 31st December, 1938, at 8-45 A.M.

There were forty-eight members present on the occasion.

1. The minutes of the annual general meeting held at Hyderabad were confirmed.

2. The report of the Honorary Secretary and Treasurer and the Auditor's statement of accounts for the year ending 31st May, 1938, were considered and approved.

3. The invitation received from the Allahabad University for holding the 23rd Conference at Allahabad was accepted.

4. The following subjects were selected for discussion at the next Conference:

(*i*) Scope and Method of Economics;
(*ii*) Recent Developments in Monetary Practice;
(*iii*) Labour Problems and Labour Legislation in India (Industrial and Agricultural);
(*iv*) A Current Topic.

5. The following office-bearers were elected for the year 1938-39:—

President	Dr. L. C. Jain, Punjab University.
Honorary Secretary and Treasurer	Dr. B. V. Narayanaswamy Naidu, Annamalai University.
Honorary Local Secretary ...	Prof. S. K. Rudra, Allahabad University.

Members of the Executive Committee

1. Prof. P. J. Thomas (Madras University).
2. Prof. V. G. Kale (Poona).
3. Prof. Radhakamal Mukerjee (Lucknow University).

4. Prof. C. N. Vakil (Bombay University).
5. Prof. J. P. Niyogi (Calcutta University).
6. Prof. S. N. Shafi (Aligarh University).
7. Prof. H. L. Dey (Dacca University).
8. Dr. A. I. Qureshi (Osmania University).
9. Prof. Gyanchand (Patna University).
10. Prof. Sen Gupta (Nagpur University).
11. Dr. Madan (Punjab University).
12. Prof. V. L. D'Souza (Mysore University).

6. Mr. Baktavatsalu, B.A., G.D.A., R.A., was re-elected Honorary Auditor. The Secretary was asked to send a letter of thanks to him.

7. The following were elected as representatives of the Association on the Editorial Board of the Journal:—

1. Prof. V. G. Kale.
2. Prof. Radhakamal Mukerjee.
3. Dr. P. S. Loganatham.
4. Dr. A. I. Qureshi.

8. It was decided that the present contract with the Allahabad University for printing the Journal be continued for a year and that a Committee consisting of Dr. P. J. Thomas, Prof. Radhakamal Mukerjee, Prof. V. G. Kale and Dr. B. V. Narayanaswamy Naidu (Convener), be constituted to suggest ways and means for improving the Journal and for entering into a new contract with the Allahabad University.

9. It was decided that the members who wished to have their papers printed by the Association should send them on or before November 15th. Those who wished to print the papers at their own cost and submit them to the Conference should send their papers on or before 1st December. No paper will be accepted after 1st December. The Secretary will inform the members of the acceptance or otherwise of the papers within two weeks of the receipt of the papers.

10. The meeting terminated with a vote of thanks to the President and the Nagpur University, proposed by Prof. V. G. Kale and seconded by Diwan Bahadur Kaji.

(Sd.) GYAN CHAND, *President.*

B. V. NARAYANASWAMY, *Hony. Secretary.*

CREATE LECTURESHIPS IN STATISTICS

AN APPEAL BY DR. L. C. JAIN,
President, Indian Economic Association.

"The importance of statistics to economic analysis cannot be exaggerated. It is a matter for gratification that the Punjab University has sanctioned the post of a lecturer in Statistics primarily with a view to encouraging the study of statistical problems in the province. It has gone a step further by making a small grant for equipment of a statistical laboratory. The genesis of the idea is traceable to the opening remarks of His Excellency the Governor of the Punjab at the second Statistical Conference held last December in Lahore, when His Excellency deplored the lack of facilities for the study of statistical problems in the province. It gave strength to the plea of those who early realised the need for some sort of University Economic Service —an institution which has earned so much to its credit in the West. Perhaps the Punjab University is the first to recognise the importance of such a service. Professors Bowley and Robertson in their report very emphatically advocated the exploitation of the special facilities available at the Universities for a study of the economic problems of the country. With their long experience of Western Universities, they clearly saw that the Indian young men too, so long as they were preparing for the coming struggle of life in colleges and at the University, could take a more detached and academic view of things in this work-a-day world.

Study of Economic Problems.

Under proper guidance important studies about the economic life of the nation can be made with profitable results. Every province in India can certainly boast of a few, if not many, selfless economists, who have devoted considerable time and energy in studying the economic trends of Indian life. To every student of rural life in India, the name of Sir Malcolm Darling is familiar. In spite of his heavy official duties, he has contributed an illuminating series of monographs on the rural life in the Punjab gifted as he is with a keen power of observation. The Punjab is lucky in having another renowned economist in the person of the Hon'ble Mr. Manohar Lal. With such

leading scholars to inspire their course a batch of earnest young men equipped with statistical outlook can collect useful material, which may not be possible to obtain otherwise. I make a strong appeal that other Indian Universities also should create lectureships in statistics with a view to forming a nucleus for the study of economic problems through the scientific methods of statistics.

To my mind the application of statistical methods to social phenomena—affected as they are by a multiplicity of causes—is a crying need of the hour. The Government has realised its responsibility for maintaining figures for the benefit of trade and commerce and is directing its activities to that end. However, social statistics have received meagre attentiòn so far. In my opinion unofficial agencies are better fitted to take up this side of the work. The Universities specially can lend a helping hand in the matter.

It may not be out of place to strike a note of caution in this connection. Very often the Universities are prone to take a too academic view in setting up their course of study. Statistics is essentially an applied science, and we should certainly not repeat the blunder of making the subject a mere mathematical abstraction. It took some useful years for our Universities to appreciate that the teaching of the sciences like Physics, Chemistry, etc., fails to catch the imagination of the young mind unless it takes into account their applications to life. Similarly our courses of study in statistics should not be merely conglomerations of formulae. They should take stock of the bearing of the subject on the problems of the state, society and science. Provision should also be made for practical work. Only then can it be expected that the teaching of the subject will be a useful addition to the activities of our Universities."

The President of the Indian Economic Association has sent us a short note for insertion in the April issue of the Journal. We do so with the greatest pleasure. All serious students of Economics and economic affairs should, indeed be grateful to the President for bringing to their notice what has already been done by the university of the Punjab, and for putting in such a strong and reasoned plea for doing the same at other University centres. We hope the universities will take up the suggestion and do their level best to give it a practical shape.

We had an opportunity to talk this matter over, of course informally, the formal proposition, will in due time, we are sure, be made by the distinguished Professor of Economics of

the Allahabad University, with the Vice-Chancellor of the Allahabad University, and we are happy to say that he very much appreciated the idea and expressed his willingness to give all possible help towards its materialisation if and when the proposal was placed before him. This is very encouraging and we strongly urge upon the authorities of other universities in India to move in the direction pointed by our distinguished President Dr. L. C. Jain, of the Punjab University.

It is only by proper exploitation of statistical data that the Science of Economics could possibly be raised from a set of uncertain and constantly debated theorems to the level of a somewhat certain and dependable science. And if we students of Economics in India succeed in contributing something towards this desiderata, it will not be a mean achievement.

MANAGING EDITOR.

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